

# **Environmental and Social Management Plan (ESMP) Checklist**

**for 990.81 kWp/ 960 kW<sub>e</sub> Solar Power Plant  
of  
Ödemiş Municipality**

**July 28, 2025**

#### Document History

Revision	Submitted to	Issue Date	Revision Details
V1	İLBANK	March 24, 2025	Draft
V2		May 15, 2025	Draft
V3		May 20, 2025	Draft
V4		June 27, 2025	Draft
V5		July, 18, 2025	Draft
V6		July 28, 2025	Final

This document has been prepared by ÇA Engineering Company.

## Environmental and Social Management Plan (ESMP) Checklist

### Part 1: General Subproject and Site Information

1.a) General	
Associated ILBANK Project	Türkiye Public and Municipal Renewable Energy Project (PUMREP)
International Financial Institution (IFI) Financing the Project	The World Bank
Project's E&S Risk Classification according to WB ESF (2018)	Moderate
Subproject Title	Ödemiş Municipality 990.81kWp/ 960 kWe Solar (Photovoltaic) Power Plant (SPP)
Sub-borrower Name	Ödemiş Municipality
Responsible ILBANK Regional Directorate (RD)	Izmir Regional Directorate
Subproject's E&S Risk Classification according to ILBANK ESMS (2023)	Moderate
Subproject Location	<b>Province:</b> İzmir <b>District:</b> Ödemiş <b>Neighborhood:</b> Işık <b>Parcel/Block no:</b> Lot 2/Block 0
Scope of Subproject and Activity <i>(in case of any changes of the subproject please fill Appendix-12 and submit to ILBANK)</i>	<b>Technology (e.g. Photovoltaic, monocrystalline, polycrystalline, thin film, bi-facial, tracking system, etc.):</b> Photovoltaic <b>Installed power:</b> 990.81 kWp <b>Connection power:</b> 960 kWe <b>Annual electricity generation:</b> 1,588 MWh/ year <b>Construction Duration:</b> 2 months <b>Operation Duration (Economic life of the Plant):</b> 25 years <b>Number of Construction Workers (at peak, including contractors and subcontractors):</b> 10 <b>Number of Operations Workers (at peak):</b> 2 <b>Planned accommodation:</b> Off-site (rented houses in nearby settlements, etc.)
Energy Transmission Line (ETL)	<b>Grid connection:</b> The project will be connected to the system via a 20 m overhead high voltage (HV) line and a 50 m underground HV line, which will be connected to the pole located within the site. <b>Status of transformer station:</b> Existing <b>Energy transmission line (ETL):</b> An EA TL will be constructed. The connection will be provided through a 20 m overhead HV line and a 50 m underground HV line. The technical information on ETL is summarized below: <ul style="list-style-type: none"> <li>• <b>Transformer station:</b> Existing</li> <li>• <b>Length of the route:</b> 70 m</li> <li>• <b>Voltage level:</b> 34,5 (kV)</li> <li>• <b>Number of parcels subject to expropriation:</b> There is no parcel subject to expropriation.</li> <li>• <b>Number of parcels subject to easement rights:</b> (“<i>irtifak hakkı</i>”): There is no parcel subject to easement right.</li> </ul> <b>Status of land acquisition:</b> The ETL route is located within the same parcel as the solar power plant (SPP). The connection point to the system is also located within the same parcel. Therefore, no permits are required. The sub-project layout plan is provided in Annex-4, and the zoning plan is presented in Annex-13.



Figure 1. Sub project ETL

Access Roads	<p>There is an access road to the subproject area. The existing road is sufficient for the transportation of equipment to the site and there is no need for new road construction or road improvement works. Access to the subproject area will be made from Aşağı Aktaş Küme Evler road. The road in question passes through Işik neighborhood. There is no school or community center as a sensitive structure on the route. The access road to the subproject area is given in Figure 1.</p> <p>Figure 1. Subproject Access Road</p>
Other Associated Facilities:  Are there any other associated facilities that are not funded as part of the Subproject and are (a) directly and significantly related to the Subproject, (b) carried out, or planned to be carried out, contemporaneously with the Subproject, <u>and</u> (c) necessary for the Subproject to be viable and would not have been constructed, expanded or conducted if the Subproject did not exist?	No

Existing Permits	<p>There is a document numbered E-71160347-000-5810035 dated 03.04.2023 stating that EIA is not required within the scope of the subproject. In addition, there are permissions and opinion letters received from the Izmir Metropolitan Municipality Izmir Water and Sewerage Administration General Directorate-Real Estate and Expropriation Department Map and Underground Facilities Branch Directorate, the General Directorate of Highways 2nd Regional Directorate, and the Provincial Directorate of Agriculture and Forestry.</p> <p>In addition, a Zoning Plan change was made for lot 2 of block 0 in the Izmir Metropolitan Municipality Council Decision dated 13/01/2025 and numbered 97509404.105.04.16, and it was changed to Renewable Energy Sources Based Production Area (Solar Power Plant).</p> <p><b>See Appendix-2</b></p>
<b>1.b) Site Description</b>	
Subproject Area	<p>The parcel has an area of 38,080 m<sup>2</sup> and 13,440 m<sup>2</sup> will be used for the subproject area.</p> <p>Number of parcels to be used: 1 (lot 2 of block 0)</p> <p>It will remain within the plot where the ETL sub-project area is located. It will not pass through another lot.</p> <p>Total title deed area of the parcel: 38,080 m<sup>2</sup></p> <p>Total area to be used by the Subproject (within the fence area): 13,440 m<sup>2</sup></p> <p><b>Appendix-1: Site Map</b></p> <p><b>Appendix-4: Photolog</b></p>
Who owns the land? Since when?	<p>Land ownership belongs to Ödemiş Municipality as of 19/06/2014.</p> <p><b>Appendix-3: Title Deeds</b></p>
Land Registry Type according to Title Deed (agricultural, pasture, vacant, etc.)	<p>Field (vacant)</p> <p>According to the opinion letter received from the Izmir Governorship Provincial Directorate of Agriculture and Forestry; the lot was determined to be dry marginal agricultural land and it was deemed appropriate to make SPP.</p>
Current Land Use (are there any formal or informal agricultural users, herders, etc.)	<p>There are no agricultural, livestock, or commercial activities on the land. It has not been used for commercial purposes by the municipality or third parties in the past.</p> <p>There are also no agricultural or livestock activity areas around the SPP site. Within the parcel boundaries, there are self-sown wild pear trees. Ödemiş Municipality has committed to replanting the same number of trees in another location if these trees need to be removed. This commitment letter is provided in Appendix-12. Trees Commitment Document</p> <p>Apart from the trees, some inactive vehicle tracks have been identified within the parcel, formed by limited vehicle passage over time. Discussions with the local community confirmed that this road is no longer actively used. More ergonomic routes are available for transportation, and the local people prefer to use these alternative roads.</p> <p>Additionally, there is a water distribution point belonging to the Izmir Water and Sewerage Administration within the parcel boundaries. However, this facility is located outside the planned SPP site and will remain outside the fenced area.</p> <p>Furthermore, a wooded area has been identified in the southwestern part of the parcel. This area is also outside the planned SPP site. Therefore, no tree relocation or cutting operations will be carried out.</p>
Other Nearby Facilities and Activities	<p>There are no other industrial or commercial activities operated/operating or planned by the Sub-borrower itself or other public or private third-parties in the vicinity of the Subproject or its components/associated facilities.</p>
Are there other industrial or commercial activities operated/operating or planned by the Sub- borrower itself or other public or private third- parties in the vicinity of the Subproject or its	

components/associated facilities?	
Area of Influence	<p>The Area of Influence (AoI) for the subproject is determined based on the anticipated environmental and social impacts during the construction, operation, and maintenance phases of the project, such as local ecosystems, nearby communities, and critical infrastructure. The transportation route passes in front of the neighborhood and does not intersect with sensitive structures such as health and school. Therefore, no traffic impact is expected during transportation and equipment transportation to the site.</p> <p>Within the scope of subproject activities; the impact area was determined as a result of interviews with local people and mukhtars during the site visit, based on components such as dust emissions, environmental noise, provision of local employment, local people's opinions about the subproject, etc. Additionally, details regarding dust emissions and environmental noise calculations to occur during subproject activities are provided in Appendix-11. Emissions and Environmental Noise Calculations</p> <p>The closest sensitive receptors to the subproject site are the mosque, greenhouses, and vineyard house located 100 meters away. Since the ETL route will remain within the subproject site, it has been evaluated together with the impacts to be carried out on the site. The access road to the subproject site passes through the settlement. For this reason, the houses and greenhouses located on the access route are also included in the impact area. During the field visits, 1 person residing on the access road was interviewed with the local people; the environmental and social risks of the subproject were explained and additional information was provided about the access road. The access channels to be applied in case of any complaints were conveyed.</p> <p>The satellite view of the nearest settlement (Işık Neighborhood) and their distances to the subproject area is given in Figure 4. Işık Neighborhood is located 1 km away, and there is a primary school within the neighborhood. Since this school is used by students residing within the neighborhood, it does not overlap with the transportation route. The school's distance to the subproject site is 1 km. The closest health facility to the subproject site is Yeniköy Health House, which is located in Yeniköy neighborhood, 2 km northwest. The distance to the site is approximately 2.5 km. It is not located on the project route. Other health facilities are located in Ödemiş district..</p> <p>In determining the social impact area; the risk of road safety to local communities due to the traffic volume created by the use of access roads to the subproject sites, contribution to local employment, contribution to the local economy, and the need for basic consultancy for vulnerable and disadvantaged individuals/groups are examined in detail in the SEP report. The subproject area impact area is given in Figure 2.</p> <p>Figure 2. Subproject AoI</p>

<p>Description of geographic and physical characteristics as appropriate.</p>	<p>The planned solar power plant will be located in Işık Neighborhood of Ödemiş, which is a rural inland area that benefits from high solar radiation and is a suitable area for solar energy production. The closest household 100 m on the southwest that may be affected by the subproject is the Işık Neighborhood household. The lot, which has gently sloping topography, is surrounded by wild trees and agricultural areas and is adjacent to small-scale rural settlements. The subproject area has a subtropical climate type with very hot, dry and sunny summers and mild and moderately rainy winters. Additionally, the existing infrastructure, including road connections and electrical networks, supports renewable energy projects, facilitating the integration of solar power into the local grid.</p> <p>According to the data obtained from the Türkiye Earthquake Hazard Maps Interactive Web Application for the subproject area, the PGA 475 (g) value was determined as 0.291 g (see Figure 3) . This value indicates the horizontal peak ground acceleration (PGA) value with a return period of 475 years. The PGA value of 0.291 g indicates that the region has a moderate seismic hazard. In this context, appropriate engineering measures should be taken for construction and infrastructure projects.</p> 
<p>Description of biological characteristics as appropriate.</p>	<p>Although SPP projects generally have low environmental impact, detailed ecological assessments are made during site selection in order not to harm biodiversity. Literature and field studies were carried out by ÇA Engineering Agricultural Engineer to determine the flora and fauna species present or likely to be present within the subproject impact area.</p> <p><b>1. Flora</b></p> <p>Literature and field studies were conducted for the determination of flora and fauna species located or likely to be located within the subproject impact area. Flora species found in the subproject impact area were identified as <i>Eryngium campestre</i>, <i>Genista scorpius</i>, <i>Pyrus pyraster</i>, <i>Plantago</i>, <i>Taraxacum officinale</i>, <i>Allium atroviolaceum</i>. In addition, wild pear trees are also found. Within the scope of the studies conducted in the subproject area, no endangered or endemic plant species were encountered in the subproject impact area. In this context, the books "Flora of Türkiye and East Aegean Island (1965- 1988)" and "Red Data Book of Turkish Plants" prepared by P. DAVİS were used. In addition, the databases prepared by TUBITAK, "<a href="http://bioces.tubitak.gov.tr">http://bioces.tubitak.gov.tr</a>" and Turkish Plants Data Service – TUBITAK: "<a href="http://wwweski.tubitak.gov.tr/tubives/">http://wwweski.tubitak.gov.tr/tubives/</a>" were scanned and the literature was supported to check whether there were any endangered species.</p> <p>There are no rare, endangered or protected plant species in the subproject impact area according to Annex 1 of the Bern Convention.</p> <p><b>2. Fauna</b></p> <p>The fauna list in the immediate vicinity of the subproject area, based on fieldwork and literature review, is given below. In literature studies; Mustafa Kuru's 'Vertebrate Animals', A. Demirsoy's 'Türkiye Vertebrates – Mammals, Amphibians', İbrahim Baran's 'Türkiye's Amphibians and Reptiles', İ. Kiziroğlu's (2008) 'Türkiye Birds Red List' (Species List in Red Data Book) were used.</p> <p>Wildlife species protected under the Bern Convention, as well as other species, are not affected by activities such as hunting, deliberate killing, captivity, or the destruction of their eggs. The decisions of the Central Hunting Commission of the Ministry of Agriculture and</p>

	<p>Forestry for 2024-2025 and the provisions of the Bern Convention will be complied with in the activity in question.</p> <p>As a result of the flora and fauna surveys conducted in the subproject area and based on consultations with local people, mammalian species including the wild boar (<i>Sus scrofa</i>), red fox (<i>Vulpes vulpes</i>), beech marten (<i>Martes foina</i>), and southern white-breasted hedgehog (<i>Erinaceus concolor</i>) have been identified in the subproject area. Among avian species, the presence of the common kestrel (<i>Falco tinnunculus</i>), Eurasian hoopoe (<i>Upupa epops</i>), Eurasian magpie (<i>Pica pica</i>), and European bee-eater (<i>Merops apiaster</i>) has been recorded. Additionally, reptile and amphibian species such as the European green lizard (<i>Lacerta viridis</i>), Caspian whipsnake (<i>Dolichophis caspius</i>), and European green toad (<i>Bufo viridis</i>) were observed. Furthermore, various invertebrate species, including bees, butterflies, and grasshoppers, contribute to the region's biodiversity. In this context, no species that are definitely protected under the BERN Convention were encountered. Species that are allowed to be hunted for certain periods by the decision of the Central Hunting Commission were identified, but these species are not within the subproject area but are in the immediate vicinity. It is not expected that the activities to be carried out within the scope of the filling activity subject to the subproject will have a negative impact on these species. However, within the scope of the subproject, necessary measures will be taken for the protection of wildlife in accordance with the Land Hunting Law No. 4915 and the decisions of the Central Hunting Commission held every year. In the subproject area; national parks, nature parks, nature monuments, nature conservation areas, wildlife conservation areas, wild animal breeding areas, cultural assets, natural assets, protected areas and protection areas, special environmental protection zones, biogenetic reserve area, biosphere reserve special protection areas, afforested areas, potential erosion and afforestation areas, protection areas related to drinking and utility water resources, densely populated areas, historical, cultural, archaeological and similar areas of importance, tourism regions and other protected areas; were not encountered in the database used as a source and other researches.</p> <p>There is no nationally protected and internationally recognized high biodiversity value areas in the subproject impact area. Additionally, there are no World Heritage Natural Protected Areas, Biosphere Reserves, Ramsar Wetlands of International Importance, Important Biodiversity Areas or Important Bird Areas. Furthermore, field surveys and desktop studies have confirmed the absence of any critical habitats, endemic or endangered species, or ecologically sensitive zones within the subproject impact area.</p>
Description of geological and hydrographic characteristics as appropriate.	<p>The selected subproject site's geological and hydrographic characteristics play a crucial role in assessing the feasibility and sustainability of the solar power plant. The geological conditions, including soil composition, bedrock stability, and seismic activity, influence the foundation design and construction process. Additionally, hydrographic features such as surface water bodies, groundwater levels, and drainage patterns are evaluated to ensure minimal impact on local water resources. This section provides an overview of the site's geological and hydrographic attributes, highlighting any relevant environmental considerations for the subproject development.</p> <p><b>1. Geological Characteristics</b></p> <p>According to Corine 2018 data; the geological structure of the subproject area located in İşik neighborhood has been shaped under the influence of the extensional tectonic regime of Western Anatolia. Ödemiş province and its surroundings are associated with important geological structures such as the Büyük Menderes Graben, and the formation of this graben is related to the extensional tectonic movements that occurred in the Miocene-Quaternary periods. Geological studies in the region show the presence of metamorphic rocks such as gneiss and schist. In particular, antimonite and scheelite minerals were found in gneiss.</p>

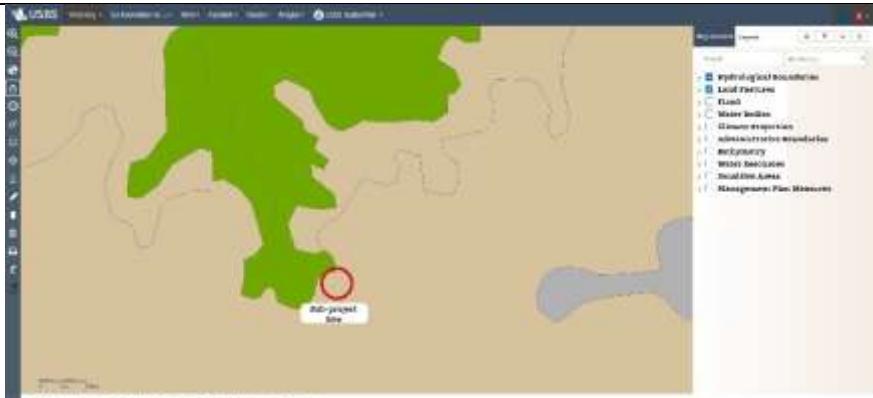


Figure 4. Subproject Land Features (<https://usbs.tarimorman.gov.tr/usbs/VatandasGiris/Index>)

## 2. Hydrographic characteristics

The closest surface water source to the subproject area is the Küçük Menderes River located in the west of the subproject area. The distance of the river to the project area is approximately 550 meters. According to the National Water Information System; there is no underground water source in the subproject area. Considering the seasonal flow changes of the river bed, there is no risk of flooding, especially during rainy periods. The map showing the closest water source to the subproject area is shared in Figure 5.

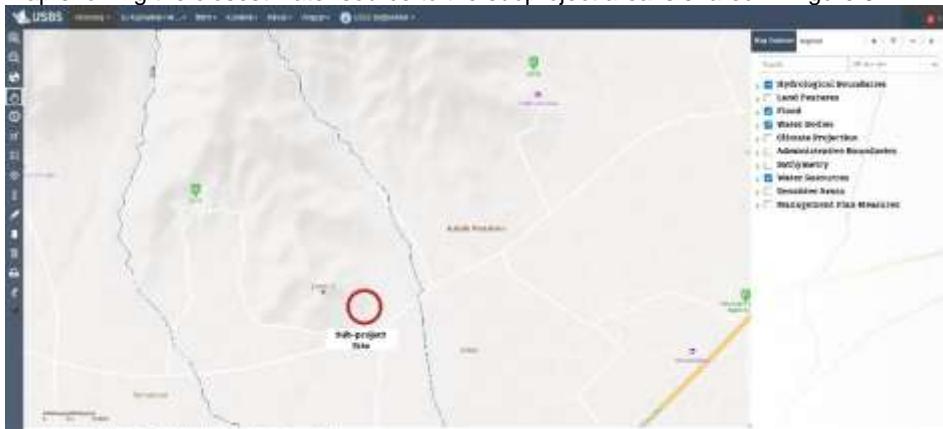


Figure 5. Subproject Water Resources (<https://usbs.tarimorman.gov.tr/usbs/VatandasGiris/Index>)

<p>Description of socio-economic characteristics as appropriate.</p>	<p>According to the survey studies conducted during the field visit, when the general socio-economic structure of the İşık neighborhood where the subproject activities will be carried out is examined, it is seen that they mainly earn their living from agriculture and animal husbandry. The population of the neighborhood, as is often seen in rural areas, tends to decrease due to the migration of the young population to big cities. This situation leads to a decrease in the local workforce and an increase in the elderly population rate. According to Turkstat data, the population, which consisted of 107 people in 2023, decreased by approximately 7% in 2024 and regressed to 99 people.</p> <p>The activity in question will create employment in the region and enable the efficient use of the country's resources, and together with the personnel who will work within the scope of the subproject, it will contribute to the increase in the level of socio-economic development in the region. It is planned to employ 10 people in the short term during the construction phase. It is planned to employ the employees in the construction, electrical and electronics and energy sectors. It is planned to employ 2 personnel in the long term during the operation phase. During the operation phase, employment opportunities will be provided in the electrical-electronics and energy sectors.</p> <p>Within the scope of the subproject, employment will primarily be provided from the local people. Given the short duration and limited workforce, the impact on regional employment will be minimal. However, sourcing materials locally for the installation and operation may provide short-term economic benefits to the region.</p>
--	--

	Since the preference of authorized regional stations in mechanical equipment, vehicle maintenance and repair works, meeting the food needs from the region, etc. will be preferred, the surrounding settlements and the city center will contribute both directly and indirectly in terms of socio-economic aspects.
If relevant, provide information about the affected settlements.	<p>Closest settlement(s):</p> <ul style="list-style-type: none"> <li>- Işık neighborhood (with 99 population, according to TurkStat, 2024)</li> </ul> <p>Closest structure(s) to the Subproject site:</p> <ul style="list-style-type: none"> <li>- Mosque, vineyard house and greenhouses located in Işık Neighborhood at 100 m southwest of the Subproject site.</li> </ul>
Locations and distance to nearest sensitive receptors such as health care units, schools?	The nearest sensitive receptor is 100 meters away. There is also Demircili Primary School 2,000 meters away.
Infrastructure services to be used during the life cycle of the subproject (sewage, electricity, water network, etc.)	Due to the subproject location, electricity, water will be supplied from the current infrastructure networks. No need to construct/renew infrastructure services due to subproject activities.
<b>1.c) E&amp;S Requirements applicable to the Subproject</b>	
<p>The subproject will be implemented in line with requirements of applicable national legislation and international agreements and conventions to which Türkiye is a party of.</p> <p>The following international standards will also be followed as applicable:</p> <ul style="list-style-type: none"> <li>- ILBANK Environmental and Social Management System (ESMS)</li> <li>- WB Environmental and Social Framework (ESF, 2018) and the Environmental and Social Standards (ESSs) forming part of the ESF</li> <li>- Good International Industry Practices (GIIPs) including but not limited to WB Group (WBG) General and Industry Sector Environmental, Health and Safety Guidelines<sup>1</sup> (EHSGs)</li> <li>- International Finance Corporation (IFC) ESMS Implementation Handbook</li> </ul> <p>In cases where the requirements of the ILBANK ESMS or national legislation differ from those of the WB ESSs or the levels and measures presented outline in the relevant WBG EHS guidelines, the more stringent standard will apply.</p>	

## Part 2: Implementation Arrangements

### 2.b) Implementation Responsibility and Resources

The sub-borrower shall implement and cause the contractor to be adopt and implement this ESMP Checklist satisfactory to ILBANK throughout the sub-financing agreement life cycle.

The sub-borrower is responsible for ensuring that adequate financial and human resources are allocated for the effective implementation of this ESMP Checklist.

Roles and Responsibilities are provided in Appendix-8. Roles and Responsibilities.

### 2.c) Organizational Capacity

#### Sub-borrower:

The sub-borrower shall establish an organizational structure (Project Implementation Unit – PIU) with qualified staff and resources to the satisfaction of ILBANK and maintain it by ensuring that there is qualified staff assigned and serving on the duty throughout the sub-financing agreement life cycle.

The sub-borrower assigns the following personnel to support management and monitoring of subproject E&S risks and impacts and ensure full compliance with the requirements of this ESMP Checklist:

- **Environmental Focal Point:** Environmental Engineer, 2 years
- **Social Focal Point** ((who will also act as the Grievance Mechanism (GM) Focal Point): Social Services Expert, 3 years

<sup>1</sup> <https://www.ifc.org/en/insights-reports/2000/general-environmental-health-and-safety-guidelines>

- **Occupational Health and Safety (OHS) Specialist:** OHS Expert, 5 years

**Contractors:**

The sub-borrower shall obligate awarded contractors to establish and maintain throughout the contract duration an organizational structure with qualified staff and resources.

This shall be achieved through assigning the following personnel under the contractor's organization prior to commencement of works:

- **One (1) Environmental Specialist:** Please insert name-surname, position/title, length of professional experience
- **One (1) Social Specialist:** Please insert name-surname, position/title, length of professional experience
- **One (1) Occupational Health and Safety (OHS) Specialist:** Please insert name-surname, position/title, length of professional experience, expertise class

The sub-borrower shall in writing notify ILBANK of the assigned contractor personnel prior to commencement of works.

**2.d) Grievance Mechanism (GM)**

The grievance mechanism of the subproject shall be implemented in line with the ILBANK's Grievance Mechanism which is available at the official ILBANK website<sup>2</sup>

The sub-borrower shall require the contractors to prepare notification board/sign and post them at or around the worksite prior to commencement of works. The board/sign will include contact details for public to raise their subproject-related grievances and feedback.

The grievances shall be recorded by the sub-borrower, construction supervision consultant and the contractor, and submitted to ILBANK weekly.

Sensitive complaints<sup>3</sup> will be reported to WB within 48 hours following the grievance received by ILBANK.

**2.e) Monitoring and Reporting**

The sub-borrower shall promptly notify ILBANK of any incident or accident related to the subproject which has, or is likely to have, a significant<sup>4</sup> adverse effect on the environment, the affected communities, the public or workers, including, inter alia, cases of sexual exploitation and abuse (SEA), sexual harassment (SH), and accidents that result in death, serious or multiple injury.

This notification shall be done by using ILBANK's E&S Incident Notification Form template (see Appendix-5. Construction Notice Template). Completed E&S Incident Notification Form shall be submitted to ILBANK by the sub-borrower within **48 hours** of the incident or accident (contractor shall notify the sub-borrower within **24 hours** of the incident or accident).

The periodic E&S monitoring reporting requirements for the subproject is as follows:

- Construction contractor will prepare **monthly** E&S monitoring reports (ESMRs) and submit to supervision consultant ("müşavir").
- During the **construction** phase, the sub-borrower, with support from supervision consultant, will prepare **quarterly** ESMRs and submit to ILBANK.
- During the **operation** phase (throughout sub-financing agreement lifecycle, until the completion of repayment period), the sub-borrower will prepare **annual** ESMRs and submit to ILBANK.

ILBANK will provide the sub-borrower with the required template for the periodic ESMRs.

<sup>2</sup> [https://www.ilbank.gov.tr/userfiles/files/Grievance\\_Mechanism.pdf](https://www.ilbank.gov.tr/userfiles/files/Grievance_Mechanism.pdf)

<sup>3</sup> Sensitive complaints could include the following (not an exhaustive list): 1) Sexual exploitation and/or any type of abuse by a staff member; 2) Fraud and/or corruption by a staff member, such as involvement in bribery or misusing funds; 3) Any action which constitutes a breach of ILBANK code of conduct including staff behavior.

<sup>4</sup> Any incident or accident relating to the subproject which has, or is likely to have, a significant adverse impact on the environment and/or health and safety of communities or employees (direct or contracted) involved in the subprojects related operations will be considered significant, including, inter alia, chemical and/or hydrocarbon materials spills; fire, explosion or unplanned releases, including during transportation; ecological damage/destruction; traffic or other type of accidents that could result in fatalities or serious injuries affecting employees and/or public complaint or protest; failure of emissions or effluent treatment; legal/administrative notice of violation; penalties, fines, or increase in pollution charges; negative media attention; chance cultural finds; labor unrest or disputes; local community concerns.

The Roles and Responsibilities are provided in **Appendix-10**.

### Part 3: ESMP Matrix: Risk and Impacts, Mitigation and Monitoring

As the Sub-project involves both construction and operational activities, the ESMP consist of two components applicable to respective Sub-project phase, as follows:

- Construction ESMP Matrix
- Operation ESMP Matrix

#### 3.a) Construction ESMP Matrix

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
<b>Labor and Working Conditions</b>				
1.	Working Conditions	Construction workforce Employees	<ul style="list-style-type: none"> <li>• Conduct daily toolbox talks covering the OHS Plan and labor conditions.</li> <li>• Develop and implement a subproject-specific simplified Labor Management Procedure (SLMP, see Appendix-7. Simplified Labor Management Procedure) to ensure compliance in recruiting and managing all employees.</li> <li>• Enforce strict prohibition of child labor, forced labor, and unregistered labor as per SLMP requirements.</li> <li>• Workers will be provided with documented information that is clear and understandable regarding their rights under national labor law, including collective agreements, and their rights related to hours of work, wages, overtime, compensation, and benefits at the start of the working relationship and whenever any material changes occur. Recruitment procedures will comply with national labor legislation and ESS2, and an accessible grievance mechanism for workers will be implemented and maintained</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
2.	General OHS risks	Construction workforce	<ul style="list-style-type: none"> <li>• Develop a comprehensive <b>risk assessment document</b> for subproject, addressing specific risks and defining mitigation measures.</li> <li>• Ensure that all employees, including subcontractors, receive necessary OHS training covering identified risks.</li> <li>• Prepare subproject management plans, including Safe Work Procedures and an <b>Emergency Response Plan</b>.</li> <li>• Enforce safety procedures and provide appropriate PPE to all employees.</li> <li>• Incorporate job-specific safety procedures and requirements in OHS training programs.</li> <li>• Prepare machine and operation specific "Safe Working Procedures" for all safety critic equipment and machinery and notify all workforce by signature.</li> <li>• Serious safety issues that may arise with primary suppliers and primary supply workers will be managed as described in the Occupational Health and Safety</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
			<p>Sub-Management Plan, which will cover primary supply workers to the extent necessary.</p> <ul style="list-style-type: none"> <li>Written contracts will be provided to subcontractors, setting out detailed job descriptions, rights and obligations, and a Code of Conduct.</li> <li>In case of OHS accidents resulting in loss of life, loss of limbs or eyes, or temporary incapacity for work lasting more than 72 hours, the Contractor shall immediately notify ILBANK PUB (within 24 hours) and follow up by filling in the Environmental and Social Reporting Template (ESRT) forms in accordance with the instructions of ILBANK. This process shall also include root cause analysis and corrective action plan.</li> </ul>	
3.	Physical Hazards: Lifting Operations OHS Risks	Construction workforce	<ul style="list-style-type: none"> <li>Ensure that lifting area will be enclosed with fence to prevent access to the lifting area during lifting work.</li> <li>Ensure that warning signs will be installed for lifting activities</li> <li>Ensure that safety procedures will be used for lifting operations.</li> <li>Ensure that lifting work will be carried out by well trained, qualified, and certified lifting team and with proper communication means and flag man.</li> <li>Ensure that workers will be provided with all necessary PPE and safety materials.</li> <li>Ensure all equipment used for lifting operations including slings, chains and hooks are checked technically and records are kept according to local safety legislation.</li> <li>Ensure that tools are selected and designed that reduce force requirements and holding times and improve postures.</li> <li>Ensure that user-adjustable workstations are provided.</li> <li>Ensure that rest and stretch breaks are incorporated into work processes and job rotation is in place.</li> <li>Ensure that quality control and maintenance programs are in place to reduce unnecessary forces and effort, and personnel are trained in proper manual handling techniques.</li> <li>Ensure that additional special circumstances, such as left-handed people, are considered.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
4.	Physical Hazards: Rotating and Moving Equipment	Construction workforce	<ul style="list-style-type: none"> <li>Design machines to eliminate trap hazards and ensure that extremities are kept out of harm's way under normal operating conditions; i.e. availability of emergency stops dedicated to the machine and placed in strategic locations;</li> <li>If a machine or equipment has an exposed moving part or an exposed pinch point that could endanger the safety of any worker, ensure that the machine or equipment is equipped with and protected by a guard or other device that</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
			<p>prevents access to the moving part or pinch point. Guards should be designed and installed in conformance with appropriate machine safety standards;</p> <ul style="list-style-type: none"> <li>• Ensure that machinery with exposed or protected moving parts or in which energy can be stored (e.g. compressed air, electrical components) is turned-off, disconnected, isolated and de-energized (Locked Out and Tagged Out) during service or maintenance;</li> <li>• Where possible, ensure that equipment is designed and installed to enable routine servicing, such as lubrication, to be carried out without removing guarding devices or mechanisms.</li> </ul>	
5.	Physical Hazards: Electrical Hazards	Construction workforce	<ul style="list-style-type: none"> <li>• No one without a valid certification on vocational training on electricity will be allowed to work on electrical installations.</li> <li>• Ensure that all energized electrical devices and lines are marked with warning signs;</li> <li>• Ensure that the devices are locked (de-charging and leaving open with a controlled locking device) and labeled (warning sign placed on the lock) during service or maintenance;</li> <li>• Ensure that all electrical cords, cables, and hand power tools are checked for frayed or exposed cords. Also, ensure that the manufacturer's</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
			<p>recommendations for the maximum permitted operating voltage of portable hand tools are followed;</p> <ul style="list-style-type: none"> <li>• Ensure that all electrical equipment used in environments that are or may be wet is double insulated/grounded; use equipment with ground fault interrupter (GFI) protected circuits;</li> <li>• Ensure that power cords and extension cords are protected against damage from traffic by shielding or suspending above traffic areas;</li> <li>• Ensure that high-voltage equipment ('electrical hazard') and service rooms where access is controlled or prohibited are properly labeled;</li> <li>• Ensure that "No Approach" zones are established around or under high voltage lines;</li> <li>• Ensure that construction vehicles or other vehicles with rubber tires that come into direct contact with or arc across high-voltage cables are taken out of service for 48 hours;</li> <li>• Ensure that all buried electrical cables are thoroughly identified and marked prior to any excavation work.</li> <li>• Ensure that special training programs are organized for employees on electrical hazards and safety precautions.</li> <li>• Ensure that rapid response teams and emergency plans are established for electrical accidents.</li> <li>• Ensure that regular electrical safety inspections are conducted in the subproject area.</li> <li>• Ensure that periodic inspections are conducted to ensure that employees use appropriate personal protective equipment (PPE).</li> </ul>	
6.	Physical Hazards: Welding and Hot Works	Construction workforce	<ul style="list-style-type: none"> <li>• Ensure that appropriate eye protection, such as welder's goggles and/or a full-face shield, and respiratory protection is provided for all personnel involved in or assisting with welding operations;</li> <li>• If welding or hot cutting is performed outside of established welding work stations, ensure that special hot work and fire prevention precautions and Standard Operating Procedures (SOPs) are in place, including "Hot Work Permits, stand-by fire extinguishers, stand-by fire watch and maintaining fire watch for up to one hour after welding or hot cutting is finished";</li> <li>• Ensure that areas where welding or hot work is performed are cleared of flammable materials (e.g. fuel, solvent, spark-ignitable materials) and should be checked regularly.</li> <li>• Ensure that all employees are trained and informed about welding operations and the safe management of hot work.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
7.	Fire Safety Prevention Measures and Emergency Response	Construction workforce Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>• Prepare an Emergency Response and Evacuation Plan before the commencement of works.</li> <li>• Ensure all employees are trained for their responsibility to report dangers and fire fighting measures</li> <li>• Ensure that all flammable and hazardous materials are stored in designated, secure areas away from ignition sources.</li> <li>• Ensure firefighting systems and equipment are available</li> <li>• Ensure fire and emergency drills are conducted regularly.</li> <li>• Designate trained fire wardens for each area to lead evacuations and coordinate with emergency responders.</li> <li>• Keep an up-to-date list of emergency contacts, including local fire departments and hospitals, for quick access in case of fire.</li> <li>• Ensure an appropriate number of trained first-aiders are present within the subproject area.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
8.	Physical Hazards: Ergonomics, Repetitive Motion, Manual Handling Lifting	Construction workforce	<ul style="list-style-type: none"> <li>• Establish clear weight limits for manual handling tasks and label heavy loads accordingly;</li> <li>• Ensure that mechanical assists are used to eliminate or reduce the effort required to lift materials, hold tools and work objects, and that more than one person is lifting if weights exceed thresholds;</li> <li>• Ensure that tools are selected and designed that reduce force requirements and holding times and improve postures;</li> <li>• Ensure that user-adjustable workstations are provided;</li> <li>• Ensure that rest and stretch breaks are incorporated into work processes and job rotation is in place;</li> <li>• Ensure quality control and maintenance programs are in place that reduce unnecessary forces and effort;</li> <li>• Ensure that additional special circumstances, such as left-handed people, are considered.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
9.	Physical Hazards: Industrial Vehicle Driving and Site Traffic	Construction workforce	<ul style="list-style-type: none"> <li>• Ensure that industrial vehicle operators are trained in the safe use of specialized vehicles such as forklifts, including safe loading/unloading, load limits;</li> <li>• Make sure drivers undergo medical supervision;</li> <li>• Ensure that moving equipment with restricted rear visibility is equipped with audible back-up alarms;</li> <li>• Ensure that rights of way, site speed limits, vehicle inspection requirements, operating rules and procedures and control of traffic patterns or direction are established;</li> <li>• Ensure that deliveries and movement of private vehicles are restricted to defined routes and areas, with 'one-way' movement preferred where appropriate.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
10.	Physical Hazards: Chemical Hazards	Construction workforce Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Ensure that the hazardous substance is replaced with a less hazardous substitute;</li> <li>Ensure that engineering and administrative control measures are in place to prevent or minimize the release of hazardous substances into the working environment, keeping the exposure level below internationally established or recognized limits;</li> <li>Ensure that the number of workers exposed or likely to be exposed is minimal;</li> <li>Ensure that chemical hazards are communicated to workers through labeling and marking according to nationally and internationally recognized requirements and standards, including International Chemical Safety Cards (ICSC), Material Safety Data Sheets (MSDS/SDSs) or equivalent. Any means of written communication should be in an easily understood language and be readily available to exposed workers and first-aid personnel;</li> <li>Ensure that employees are trained in the use of available information (such as MSDSs/SDSs), safe working practices and proper use of PPE.</li> <li>Ensure workers have access to suitable personal protective equipment (PPE), such as gloves, respirators, goggles, and protective clothing, based on the specific chemical hazards.</li> <li>Store hazardous substances in designated areas with appropriate ventilation, labeling, and secure containment to prevent accidental exposure or spills.</li> <li>Develop and implement a spill response (as a part of Emergency Response Plan) that includes containment, cleanup, and disposal of hazardous substances, along with emergency contact information.</li> <li>Dispose of chemical waste according to regulations to prevent environmental contamination and worker exposure.</li> <li>Regularly inspect and maintain chemical handling equipment, storage areas, and PPE to prevent leaks or accidental releases.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
11.	Gender-Based Violence (GBV); Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) on Employees; Gender Inequality	Construction workforce	<ul style="list-style-type: none"> <li>Provide GBV and SEA/SH awareness sessions for the management teams of the construction contractor and consultants to promote understanding and accountability.</li> <li>Conduct regular awareness meetings with workers to educate them on GBV and SEA/SH issues and the importance of respectful workplace conduct.</li> <li>Ensure all workers receive training on recognizing, preventing, and responding to GBV and SEA/SH incidents.</li> <li>Require all workers to review, sign, and adhere to a Code of Conduct that explicitly addresses unacceptable behaviors related to GBV and SEA/SH.</li> <li>Implement a confidential and accessible grievance mechanism specifically designed to capture and address GBV and SEA/SH-related complaints in a timely manner.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
<b>Resource Efficiency and Pollution Prevention and Management</b>				

	12. Waste Management - General	Communities Construction workforce Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Separate waste at the source into waste categories determined in Waste Management Regulation, establish temporary waste storage area</li> <li>Place labeled bins for each type of waste at strategic locations on-site to ensure correct disposal by workers.</li> <li>Implement practices to reduce waste generation by optimizing material use and reusing materials where possible.</li> <li>Contract with local recycling facilities to ensure that recyclable materials (e.g., metals, paper, plastic) are properly processed.</li> <li>Store waste in designated, secured areas to prevent littering, leaching, and environmental contamination.</li> <li>Use leak-proof containers for hazardous or liquid waste and ensure they are adequately labeled.</li> <li>Contract with licensed waste disposal companies to handle non-recyclable and hazardous wastes in accordance with Waste Management Regulation.</li> <li>Track and document the disposal process to ensure compliance and accountability.</li> <li>Conduct regular awareness sessions and training for workers on waste reduction techniques, proper disposal practices, and the importance of waste management.</li> <li>Regularly monitor waste management practices, conduct site inspections, and assess waste volumes to identify areas for improvement.</li> <li>Establish a reporting system to document waste types, quantities, and disposal methods.</li> <li>Develop a comprehensive waste management plan that includes waste reduction targets, disposal methods, monitoring schedules, and assigned responsibilities for effective waste management throughout the subproject.</li> <li>Use containment systems for waste that poses spill risks, and keep spill kits accessible. Train staff on immediate spill response actions to prevent soil and water contamination.</li> <li>Conduct maintenance tasks, such as oil changes and battery replacements, off-site,</li> <li>The procurement of recyclable or reusable materials should be prioritized.</li> <li>A documented system should be established to track and record all types of waste, their quantities, and disposal methods.</li> <li>Roles and responsibilities related to waste management should be clearly defined, and responsible personnel should be specified in the waste management plan.</li> <li>The stripping depth of the surface (topsoil) should be clearly defined, typically within a depth of 10 cm.</li> <li>Stripped topsoil should be stored separately in a manner that preserves its fertility and protects it from erosion, compaction, and leaching.</li> <li>Stored topsoil should be reused during post-construction landscaping and rehabilitation works, especially in erosion-prone or revegetation areas.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
--	--------------------------------	---	---	---

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
13.	Waste Management - Electronic Waste Disposal	Communities Construction workforce Soil and water resources	<ul style="list-style-type: none"> <li>Contract with recycling facilities and/or manufacturers to ensure proper disposal or recycling of obsolete equipment;</li> <li>Agreements will be set with e-waste recycling facilities to ensure responsible disposal of electronic waste from solar panels, inverters, batteries, etc.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
14.	Wastewater Management	Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Construct septic tanks for collecting wastewater from site staff;</li> <li>Regularly dispose/vacuum wastewater in the septic tank to prevent overflow, reduce the risk of contamination, and ensure the proper functioning of the system.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
15.	Soil and Groundwater Contamination	Communities Construction workforce Flora and fauna Soil and water resources	<ul style="list-style-type: none"> <li>Contain and clean up any oil, chemical, lubricant, or fuel spill immediately to prevent environmental contamination.</li> <li>Implement spill prevention and response measures. Maintain spill containment and clean-up kits on-site. Ensure all spills are contained, cleaned, and disposed of by licensed waste management companies.</li> <li>Conduct routine servicing of construction vehicles and equipment at designated off-site locations to minimize the risk of leaks or spills.</li> <li>Perform refuelling in designated areas following strict protocols to prevent accidental spills.</li> <li>Collect and store waste oil securely for recycling or dispose of it through licensed waste vendors to ensure safe handling.</li> <li>Provide adequate sanitary facilities, including toilets and showers, for the construction workforce. Ensure prompt repairs and maintenance in the event of any leaks or spills to maintain hygiene and safety standards.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
16.	Dust and Gaseous Emissions	Communities Construction workforce Flora and fauna Ambient air quality	<ul style="list-style-type: none"> <li>Apply water spraying to suppress dust when dusting occurs on roads and construction area. Use water tankers to supply water for this purpose.</li> <li>Inform communities/residential areas nearby about the schedule and nature of construction activities as part of the Stakeholder Engagement Plan (SEP).</li> <li>Carry out loading and unloading of trucks carefully to prevent materials from dispersing or scattering.</li> <li>Cover transport trucks with tarpaulins on public roads when arriving at or leaving the site to minimize dust. Clean truck tires before leaving the site to prevent mud and debris from spreading onto public roads.</li> <li>Enforce a speed limit for trucks to reduce dust and improve site safety.</li> <li>Use modern equipment and vehicles that meet relevant emission standards. Regularly inspect and maintain exhaust systems to ensure emission levels remain within safe limits.</li> <li>Implement good site practices by using low-emission construction equipment and vehicles. Utilize cleaner fuels and technologies to reduce dust and other airborne pollutants.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
			<ul style="list-style-type: none"> <li>Implement a grievance mechanism to address community concerns. Halt work in case of grievances until corrective measures are in place.</li> </ul>	
17.	Environmental Noise	Communities Construction workforce	<ul style="list-style-type: none"> <li>Prohibit the operation of construction machinery at night to minimize noise disturbances.</li> <li>Inform communities/residential areas nearby about the timing and nature of construction activities as part of the Stakeholder Engagement Plan (SEP).</li> <li>Ensure that machinery and equipment used during land preparation and construction are distributed evenly throughout the site rather than concentrated in one location.</li> <li>Choose construction machinery and equipment with low noise emissions to minimize noise impact on the surrounding area.</li> <li>Use noise barriers or enclosures for loud equipment.</li> <li>Conduct regular and periodic maintenance of construction machinery and equipment, including daily checks before each shift, to ensure optimal performance and reduce noise levels.</li> <li>Ensure all vehicles used for transportation comply with the speed limits to minimize noise and enhance safety.</li> <li>Establish a grievance mechanism to receive and address complaints related to noise and other nuisances from the community.</li> <li>Halt construction activities in response to grievances until appropriate preventive measures are implemented to address the issues raised.</li> <li>In case of any environmental noise complaints, measurements will be conducted by accredited laboratory to determine the environmental noise level caused by construction work and if it is over the limits, additional measures such as barriers, arrangement of working hours, etc. will be taken.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
18.	Hazardous Substances Management	Construction workforce Communities Flora and fauna Soil and water resources	<ul style="list-style-type: none"> <li>Maintain a comprehensive record of the types, quantities, and properties of hazardous materials to be stored on-site.</li> <li>Establish a designated storage area specifically equipped for the safe storage of hazardous and toxic materials.</li> <li>Ensure all storage containers are clearly labelled with appropriate hazard warnings, safety information, and emergency contact details to facilitate proper handling and identification. All chemicals will be managed in accordance with their Material Safety Data Sheets (MSDS).</li> <li>Utilize suitable containers, tanks, and bunding systems to contain hazardous materials and prevent spills, leaks, or releases. Implement secondary containment measures, such as berms, dikes, or containment basins, to capture any accidental releases.</li> <li>Ensure adequate ventilation and venting systems are in place within storage areas to prevent the accumulation of hazardous vapours or gases.</li> <li>Identify and safely remove hazardous materials, including lead-containing components from solar panels and electronic waste from inverters, following proper disposal protocols.</li> <li>Implement appropriate containment and handling procedures to minimize the risk of spills or releases of hazardous substances during storage and handling.</li> <li>Arrange for the proper disposal or recycling of hazardous materials through licensed facilities to ensure safe and compliant waste management.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
<b>Community Health and Safety</b>				
19.	Increased traffic	Communities	<ul style="list-style-type: none"> <li>Coordinate traffic management to regulate construction vehicle movement.</li> <li>Schedule construction activities during off-peak hours to minimize traffic congestion.</li> <li>Ensure coordination and develop infrastructure upgrades or expansions in advance of the subproject, including improvements to roads, utilities, and telecommunications if necessary.</li> <li>Use flagmen and signage to direct traffic safely around construction area.</li> <li>Provide regular updates to the community about construction schedules and traffic impacts.</li> <li>Ensure all construction vehicles comply with speed limits specified in the regulations and are maintained to minimize emissions and noise.</li> <li>Limit vehicle speed on unpaved roads to 30 km/h.</li> <li>Conduct safety training for construction workers on road safety protocols and provide road safety training for all drivers.</li> <li>Use safe traffic control measures, including road warning signs, speed bumps, and flag persons as necessary.</li> <li>Monitor traffic conditions and adjust operations as necessary to ensure safety.</li> <li>Repair any damage to the roads promptly.</li> <li>Establish a grievance mechanism for community members to report traffic concerns.</li> <li>Prepare an emergency response plan and protocols to address potential infrastructure failures, accidents, or natural disasters during construction.</li> <li>Place warning signs, speed bumps and signaling systems on roads passing in front of the school.</li> <li>Restrict construction site vehicles from passing through the area during school entrance and exit hours or determine alternative routes.</li> <li>Before construction work that may cause temporary disturbance, the public and nearby institutions and organizations, hospitals and schools will be informed.</li> <li>Assign direction officers to ensure safe passage of service vehicles and pedestrians</li> <li>Vehicles carrying project materials would not park outside the subproject area.</li> <li>As stated in Appendix-2. Copies of Existing Permitting Documentation of the İZSU opinion, the internal road within the parcel is used to access the water well and water storage tank. This area may also be used by the local community. Therefore, if the planned panel layout does not obstruct this road, its continued use will be permitted. If the layout overlaps with the road, an alternative internal access route will be constructed to ensure uninterrupted access for both operational needs and the local community.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
20.	Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Communities	<ul style="list-style-type: none"> <li>Deliver ethical rules and public communication training to all employees to prevent gender-based violence (GBV), harassment, and abuse in the workplace.</li> <li>Require all workers to sign and adhere to a code of conduct that promotes respectful behaviour.</li> <li>Conduct regular awareness-raising sessions on-site focused on GBV prevention and other relevant social issues.</li> <li>Establish a grievance mechanism to receive and address complaints related to GBV and workplace misconduct.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
21.	Local Economy, Livelihood Sources and Employment	Communities	<ul style="list-style-type: none"> <li>Prioritize local hiring for unskilled, semi-skilled, and skilled positions within the scope of the subproject.</li> <li>Regularly engage with local communities and maintain a grievance mechanism to address community concerns and feedback.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
22.	Impacts on Vulnerable and Disadvantaged Individuals and Groups	Communities	<ul style="list-style-type: none"> <li>Develop a recruitment policy that includes non-discriminatory hiring practices, tailored training programs for vulnerable groups, and support services such as transportation and childcare to facilitate workforce participation.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

#### Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

23.	Impacts on Local Communities using the Site and Its Environs for Grazing, Agriculture or Beekeeping	Communities	<ul style="list-style-type: none"> <li>Ensure availability of grievance mechanism for stakeholders affected by land use.</li> <li>It will be ensured that construction activities do not restrict/obstruct the social and economic life of the local community.</li> <li>Private and public lands outside the project work area will not be entered and all measures will be taken to prevent this.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
-----	---	-------------	--	---

#### Biodiversity Conservation and Sustainable Management of Living Natural Resources

24.	Disturbance on Biodiversity	Flora and fauna	<ul style="list-style-type: none"> <li>Identify presence and distribution of flora and fauna on the subproject site, if any, with a focus on impact on habitats such as nesting or burrowing sites, to avoid disturbance or destruction during construction activities.</li> <li>Implement a gradual construction approach to allow fauna species time to escape or provide for their relocation to suitable habitats.</li> <li>Schedule construction activities during periods of low wildlife activity, avoiding nesting seasons for birds and hibernation periods for mammals.</li> <li>Minimize vegetation removal by conducting thorough surveys to avoid unnecessary clearing.</li> <li>Restore natural vegetation upon completion of construction activities to enable species to re-inhabit surrounding areas.</li> <li>Install exclusion fencing to prevent animals from entering construction zones, using wildlife-friendly designs that allow small animals to pass through safely.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
-----	-----------------------------	-----------------	--	---

No.	Risks and Impacts	Receptor(s)	Proposed Mitigation Measure	Responsible Parties
			<ul style="list-style-type: none"> <li>Install barriers around known burrows or nesting sites to protect them from disruption during construction, using temporary or permanent solutions as necessary.</li> <li>Clearly separate subproject construction sites and access roads from other areas with appropriate signage and fencing, limiting personnel and vehicle access to these areas.</li> <li>Reduce habitat degradation by keeping vehicles on designated access roads and minimizing pedestrian traffic in intact areas.</li> </ul>	
<b>Cultural Heritage</b>				
25.	Impacts on Cultural Heritage	Cultural heritage	<ul style="list-style-type: none"> <li>Develop and implement the Chance Finds Procedure (see Appendix-9: Chance Find Procedure) to ensure timely identification and appropriate management of any chance findings during subproject implementation.</li> <li>Include the Chance Finds Procedure as part of toolbox training sessions during construction to raise awareness among workers.</li> <li>Stop construction work immediately if any chance finds are encountered.</li> <li>Inform the relevant Preservation Board or Museum Directorate immediately, and ensure the security of the area by the contractor. Construction work will not resume until official notification is received.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor
<b>Stakeholder Engagement and Information Disclosure</b>				
26.	Insufficient Stakeholder Engagement Activities and Public Consultation.	Communities Construction workforce	<ul style="list-style-type: none"> <li>Create channels for interaction and communication with local communities, ensuring that engagement activities are scheduled at convenient times.</li> <li>Conduct regular consultations with relevant authorities and local communities in the area of impact to discuss project management and gather feedback.</li> <li>The needs and expectations of the local population should be taken into consideration.</li> <li>All channels of reaching out to the local people will be used to increase participation. Bulk SMS, WhatsApp messages, social media channels, posters and brochures will be prepared and delivered to the local people, especially the brochures will be hung in mukhtar offices, mosques, tea houses and coffee houses. In addition, a section will be created for the subproject on the Ödemiş Municipality website. All information about the subproject will be shared here. The support they need will be provided to vulnerable and disadvantaged groups who may have difficulty in participation.</li> </ul>	Ödemiş Municipality Supervision Consultant Contractor

### 3.b) Operation ESMP Matrix

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
<b>Labor and Working Conditions</b>				
1.	Improper Working Conditions	Employees	<ul style="list-style-type: none"> <li>Conduct daily/weekly toolbox talks covering the OHS Plan and labor conditions.</li> <li>Apply the SLMP to ensure compliance in recruiting and managing all employees.</li> <li>Enforce strict prohibition of child labor, forced labor, and unregistered labor as per SLMP requirements.</li> <li>Provide employees with clear, documented information on their labor rights, including working hours, wages, overtime, compensation, and benefits at the start of employment and whenever material changes occur.</li> <li>Implement and maintain an accessible Grievance Mechanism for workers. Inform all workers at recruitment.</li> </ul>	Ödemiş Municipality
2.	General OHS risks	Employees	<ul style="list-style-type: none"> <li>Develop a comprehensive <b>risk assessment document</b> for subproject, addressing specific risks and defining mitigation measures.</li> <li>Ensure that all employees, including subcontractors, receive necessary OHS training covering identified risks.</li> <li>Prepare subproject management plans, including Safe Work Procedures and an <b>Emergency Response Plan</b>.</li> <li>Enforce safety procedures and provide appropriate PPE to all employees.</li> <li>Incorporate job-specific safety procedures and requirements in OHS training programs.</li> </ul>	Ödemiş Municipality
3.	Physical Hazards: Lifting Operations OHS Risks	Employees	<ul style="list-style-type: none"> <li>Ensure that lifting area will be enclosed with fence to prevent access to the lifting area during lifting work.</li> <li>Ensure that warning signs will be installed for lifting activities</li> <li>Ensure that safety procedures will be used for lifting operations.</li> <li>Ensure that lifting work will be carried out by well trained, qualified, and certified lifting team and with proper communication means and flag man.</li> <li>Ensure that workers will be provided with all necessary PPE and safety materials.</li> <li>Ensure all equipment used for lifting operations including slings, chains and hooks are checked technically and records are kept according to local safety legislation.</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
4.	Physical Hazards: Electrical Hazards	Employees	<ul style="list-style-type: none"> <li>• No one without a valid certification on vocational training on electricity will be allowed to work on electrical installations.</li> <li>• Ensure that all energized electrical devices and lines are marked with warning signs;</li> <li>• Ensure that the devices are locked (de-charging and leaving open with a controlled locking device) and labeled (warning sign placed on the lock) during service or maintenance;</li> <li>• Ensure that all electrical cords, cables, and hand power tools are checked for frayed or exposed cords. Also, ensure that the manufacturer's recommendations for the maximum permitted operating voltage of portable hand tools are followed;</li> <li>• Ensure that all electrical equipment used in environments that are or may be wet is double insulated/grounded; use equipment with ground fault interrupter (GFI) protected circuits;</li> <li>• Ensure that power cords and extension cords are protected against damage from traffic by shielding or suspending above traffic areas;</li> <li>• Ensure that high-voltage equipment ('electrical hazard') and service rooms where access is controlled or prohibited are properly labeled;</li> <li>• Ensure that "No Approach" zones are established around or under high voltage lines;</li> <li>• Ensure that construction vehicles or other vehicles with rubber tires that come into direct contact with or arc across high-voltage cables are taken out of service for 48 hours;</li> <li>• Ensure that all buried electrical cables are thoroughly identified and marked prior to any excavation work.</li> <li>• Ensure that special training programs are organized for employees on electrical hazards and safety precautions.</li> <li>• Ensure that rapid response teams and emergency plans are established for electrical accidents.</li> <li>• Ensure that regular electrical safety inspections are conducted in the subproject area.</li> <li>• Ensure that periodic inspections are conducted to ensure that employees use appropriate personal protective equipment (PPE).</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
5.	Fire Safety Prevention Measures and Emergency Response	Employees Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>• Ensure all employees are trained for their responsibility to report dangers and fire fighting measures</li> <li>• Ensure that all flammable and hazardous materials are stored in designated, secure areas away from ignition sources.</li> <li>• Ensure firefighting systems and equipment are available.</li> <li>• Ensure fire and emergency drills are conducted regularly.</li> <li>• Designate trained fire wardens for each area to lead evacuations and coordinate with emergency responders.</li> <li>• Keep an up-to-date list of emergency contacts, including local fire departments and hospitals, for quick access in case of fire.</li> <li>• Ensure an appropriate number of trained first-aiders are present within the subproject area.</li> </ul>	Ödemiş Municipality
6.	Physical Hazards: Ergonomics, Repetitive Motion, Manual Handling Lifting	Employees	<ul style="list-style-type: none"> <li>• Establish clear weight limits for manual handling tasks and label heavy loads accordingly;</li> <li>• Ensure that mechanical assists are used to eliminate or reduce the effort required to lift materials, hold tools and work objects, and that more than one person is lifting if weights exceed thresholds;</li> <li>• Ensure that tools are selected and designed that reduce force requirements and holding times and improve postures;</li> <li>• Ensure that user-adjustable workstations are provided;</li> <li>• Ensure that rest and stretch breaks are incorporated into work processes and job rotation is in place;</li> <li>• Ensure quality control and maintenance programs are in place that reduce unnecessary forces and effort;</li> <li>• Ensure that additional special circumstances, such as left-handed people, are considered.</li> </ul>	Ödemiş Municipality
7.	Physical Hazards: Chemical Hazards	Employees Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>• Ensure that the hazardous substance is replaced with a less hazardous substitute;</li> <li>• Ensure that engineering and administrative control measures are in place to prevent or minimize the release of hazardous substances into the working environment, keeping the exposure level below internationally established or recognized limits;</li> <li>• Ensure that the number of workers exposed or likely to be exposed is minimal;</li> <li>• Ensure that chemical hazards are communicated to workers through labeling and marking according to nationally and internationally recognized requirements and standards, including International Chemical Safety Cards (ICSC), Material Safety Data Sheets (MSDS/SDSs) or equivalent. Any means of written communication should be in an easily</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
			<p>understood language and be readily available to exposed workers and first-aid personnel;</p> <ul style="list-style-type: none"> <li>• Ensure that employees are trained in the use of available information (such as MSDSs/SDSs), safe working practices and proper use of PPE.</li> <li>• Ensure workers have access to suitable personal protective equipment (PPE), such as gloves, respirators, goggles, and protective clothing, based on the specific chemical hazards.</li> <li>• Store hazardous substances in designated areas with appropriate ventilation, labeling, and secure containment to prevent accidental exposure or spills.</li> <li>• Develop and implement a spill response (as a part of Emergency Response Plan) that includes containment, cleanup, and disposal of hazardous substances, along with emergency contact information.</li> <li>• Dispose of chemical waste according to regulations to prevent environmental contamination and worker exposure.</li> <li>• Regularly inspect and maintain chemical handling equipment, storage areas, and PPE to prevent leaks or accidental releases.</li> </ul>	
8.	Gender-Based Violence (GBV); Sexual Exploitation and Abuse/Sexual Harassment (SEA/SW) on Employees; Gender Inequality	Employees	<ul style="list-style-type: none"> <li>• Provide GBV and SEA/SW awareness sessions for the management teams of the construction contractor and consultants to promote understanding and accountability.</li> <li>• Conduct regular awareness meetings with workers to educate them on GBV and SEA/SW issues and the importance of respectful workplace conduct.</li> <li>• Ensure all workers receive training on recognizing, preventing, and responding to GBV and SEA/SW incidents.</li> <li>• Require all workers to review, sign, and adhere to a Code of Conduct that explicitly addresses unacceptable behaviors related to GBV and SEA/SW.</li> <li>• Implement a confidential and accessible grievance mechanism specifically designed to capture and address GBV and SEA/SW-related complaints in a timely manner.</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
<b>Resource Efficiency and Pollution Prevention and Management</b>				
9.	Waste Management	Employees Communities Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Separate waste at the source into waste categories determined in Waste Management Regulation, establish temporary waste storage area</li> <li>Place labeled bins for each type of waste at strategic locations on-site to ensure correct disposal by workers.</li> <li>Implement practices to reduce waste generation by optimizing material use and reusing materials where possible.</li> <li>Contract with local recycling facilities to ensure that recyclable materials (e.g., metals, paper, plastic) are properly processed.</li> <li>Store waste in designated, secured areas to prevent littering, leaching, and environmental contamination.</li> <li>Use leak-proof containers for hazardous or liquid waste and ensure they are adequately labeled.</li> <li>Contract with licensed waste disposal companies to handle non-recyclable and hazardous wastes in accordance with Waste Management Regulation.</li> <li>Track and document the disposal process to ensure compliance and accountability.</li> <li>Conduct regular awareness sessions and training for workers on waste reduction techniques, proper disposal practices, and the importance of waste management.</li> <li>Regularly monitor waste management practices, conduct site inspections, and assess waste volumes to identify areas for improvement.</li> <li>Establish a reporting system to document waste types, quantities, and disposal methods.</li> <li>Develop a comprehensive waste management plan that includes waste reduction targets, disposal methods, monitoring schedules, and assigned responsibilities for effective waste management throughout the subproject.</li> <li>Use containment systems for waste that poses spill risks, and keep spill kits accessible. Train staff on immediate spill response actions to prevent soil and water contamination.</li> <li>Conduct maintenance tasks, such as oil changes and battery replacements, off-site;</li> </ul>	Ödemiş Municipality

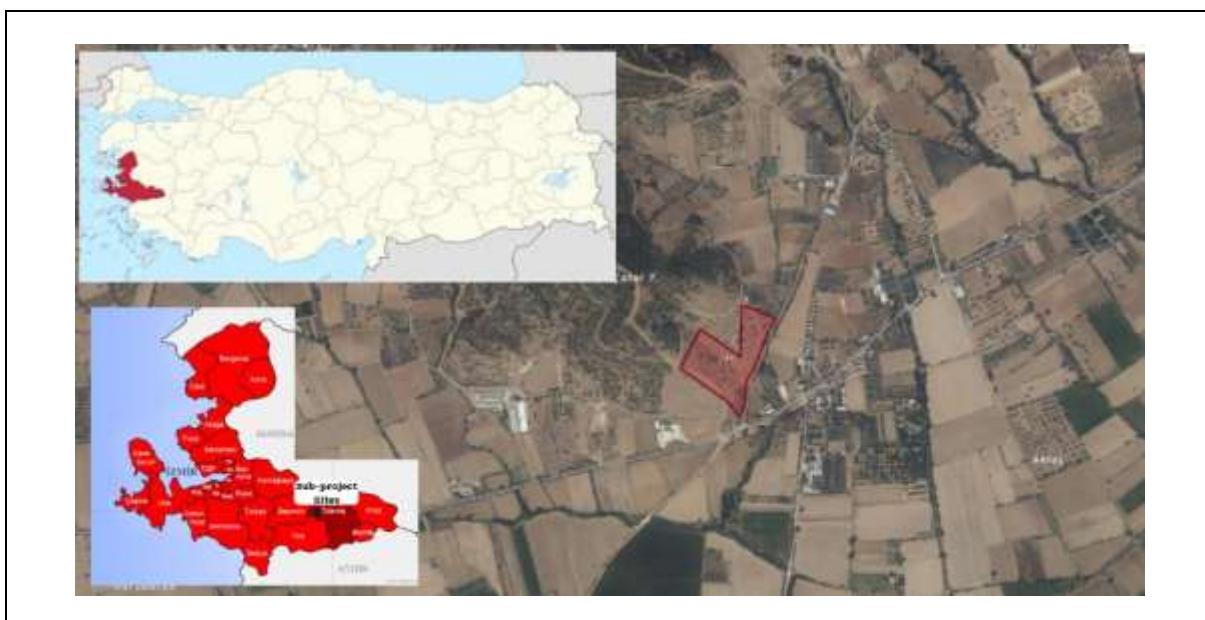
Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
10.	Electronic Waste Disposal	Employees Communities Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Contract with recycling facilities and/or manufacturers to ensure proper disposal or recycling of obsolete equipment;</li> <li>Agreements will be set with e-waste recycling facilities to ensure responsible disposal of electronic waste from solar panels, inverters, batteries, etc.</li> </ul>	Ödemiş Municipality
11.	Water Use	Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Use water efficiently when cleaning solar panels to minimize water consumption and wastewater production.</li> <li>Implement wiper cleaning using rubber blade water sprayers that require minimal water, promoting water conservation practices.</li> </ul>	Ödemiş Municipality
12.	Wastewater Management	Flora and fauna Soil, water resources	<ul style="list-style-type: none"> <li>Utilize septic tanks constructed during the construction stage to collect wastewater from operational staff.</li> <li>Ensure septic tanks are regularly vacuumed to prevent overflow, reduce contamination risk, and maintain system functionality.</li> </ul>	Ödemiş Municipality
13.	Soil and Groundwater Contamination	Employees Communities Flora and fauna Soil and water resources	<ul style="list-style-type: none"> <li>Contain and clean up any oil, chemical, lubricant, or fuel spill immediately to prevent environmental contamination.</li> <li>Implement spill prevention and response measures. Maintain spill containment and clean-up kits on-site. Ensure all spills are contained, cleaned, and disposed of by licensed waste management companies.</li> <li>Conduct routine servicing of construction vehicles and equipment at designated off-site locations to minimize the risk of leaks or spills.</li> <li>Collect and store waste oil securely for recycling or dispose of it through licensed waste vendors to ensure safe handling.</li> <li>Provide adequate sanitary facilities, including toilets and showers, for the workforce. Ensure prompt repairs and maintenance in the event of any leaks or spills to maintain hygiene and safety standards.</li> </ul>	Ödemiş Municipality
14.	Hazardous Substances Management	Employees Communities Flora and fauna Soil and water resources	<ul style="list-style-type: none"> <li>Maintain a comprehensive record of the types, quantities, and properties of hazardous materials to be stored on-site.</li> <li>Establish a designated storage area specifically equipped for the safe storage of hazardous and toxic materials.</li> <li>Ensure all storage containers are clearly labelled with appropriate hazard warnings, safety information, and emergency contact details to facilitate proper handling and identification. All chemicals will be managed in accordance with their Material Safety Data Sheets (MSDS).</li> <li>Utilize suitable containers, tanks, and bunding systems to contain hazardous materials and prevent spills, leaks, or releases. Implement secondary containment measures, such as berms, dikes, or containment basins, to capture any accidental releases.</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
			<ul style="list-style-type: none"> <li>• Ensure adequate ventilation and venting systems are in place within storage areas to prevent the accumulation of hazardous vapours or gases.</li> <li>• Identify and safely remove hazardous materials, including lead-containing components from solar panels and electronic waste from inverters, following proper disposal protocols.</li> <li>• Implement appropriate containment and handling procedures to minimize the risk of spills or releases of hazardous substances during storage and handling.</li> <li>• Arrange for the proper disposal or recycling of hazardous materials through licensed facilities to ensure safe and compliant waste management.</li> </ul>	
<b>Community Health and Safety</b>				
15.	Risk of accidents and injury (e.g. Electric Shock) involving community members (inc. Children)	Communities	<ul style="list-style-type: none"> <li>• Subproject area must be fenced and access of the community members (especially children) must be physically restricted by any means.</li> <li>• Security surveillance of the area must be maintained 7/24</li> </ul>	Ödemiş Municipality
16.	Glare from Solar Panels which can be a Safety Hazard for Drivers, Pedestrians, and Nearby Residents, Particularly if it Impairs Visibility or Causes Discomfort	Communities	<ul style="list-style-type: none"> <li>• Ensure correct orientation of solar panels to minimize glare and reduce potential impact on road safety near the solar plant.</li> <li>• Apply anti-glare coatings to panels where required to further mitigate glare and enhance road safety in the vicinity.</li> </ul>	Ödemiş Municipality
17.	Risks Related With Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Communities	<ul style="list-style-type: none"> <li>• Deliver ethical rules and public communication training to all employees to prevent gender-based violence (GBV), harassment, and abuse in the workplace.</li> <li>• Require all workers to sign and adhere to a code of conduct that promotes respectful behaviour.</li> <li>• Conduct regular awareness-raising sessions on-site focused on GBV prevention and other relevant social issues.</li> <li>• Establish a grievance mechanism to receive and address complaints related to GBV and workplace misconduct.</li> </ul>	Ödemiş Municipality

Ref.	Impact Description	Sensitive Receptor(s)	Management/ Mitigation Measure	Responsibility for Implementation of Mitigation Measure
18.	Impacts on Local Economy, Livelihood Sources and Employment	Communities	<ul style="list-style-type: none"> <li>Regularly engage with local communities and maintain a grievance mechanism to address community concerns and feedback.</li> </ul>	Ödemiş Municipality
19.	Impacts on Vulnerable and Disadvantaged Individuals and Groups	Communities	<ul style="list-style-type: none"> <li>Implement a recruitment policy that promotes non-discriminatory hiring, provides tailored training for vulnerable groups, and offers support services such as transportation or childcare.</li> <li>Develop and execute Corporate Social Responsibility activities to benefit local communities, focusing on identified needs such as road improvements and utility enhancements.</li> </ul>	Ödemiş Municipality
20.	Security Personnel	Communities	<ul style="list-style-type: none"> <li>The grievance mechanism will allow communities and workers to express concerns regarding security issues and behaviour of security personnel.</li> </ul>	Ödemiş Municipality
<b>Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>				
21.	Disturbance on Biodiversity	Flora and fauna	<ul style="list-style-type: none"> <li>Ensure proper maintenance of exclusion fencing around the site, utilizing wildlife-friendly designs that allow small animals, such as hedgehogs, to pass safely.</li> <li>Implement appropriate signage and fencing to separate subproject access roads from other areas, limiting personnel and vehicle access to designated zones.</li> <li>Domestic and industrial waste management should be carried out in accordance with the legislation and no waste should be left in the open.</li> <li>Devices or applications that produce odors, lights, or sounds that wild vertebrates perceive as threatening should be minimized. Pets should not be kept and food that will attract wild animals to the SPP site should not be left in the area.</li> </ul>	Ödemiş Municipality
<b>Stakeholder Engagement and Information Disclosure</b>				
22.	Insufficient Stakeholder Engagement Activities and Public Consultation.	Communities Construction workforce	<ul style="list-style-type: none"> <li>Create channels for interaction and communication with local communities, ensuring that engagement activities are scheduled at convenient times.</li> <li>Conduct regular consultations with relevant authorities and local communities to discuss subproject management and gather feedback.</li> </ul>	Ödemiş Municipality

## Appendices

### Appendix-1. Site Map



## Appendix-2. Copies of Existing Permitting Documentation

### EIA Document



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



Sayı : E-71160347-000-5810035  
Konu : Ödemiş İşık Mahallesi 2 parsel GES  
Görüşü

*İzmir*  
ASAYİS VE ŞEHİRCİLİK MÜDÜRLÜĞÜ  
03.04.2023

#### ÖDEMIŞ BELEDİYE BAŞKANLIĞINA

İlgili : 14.02.2023 tarihli ve 24314934-115.01.04-56693 sayılı yazınız.

İlgili yazı ve ekleri ile; İzmir İli, Ödemiş İlçesi İşık Mahallesi 2 numaralı parsel üzerinde Güneş Enerjisi Santrali kurulması amacıyla imar planı çalışmaları yapılacağı belirtilerek İl Müdürlüğümüz görüşü talep edilmektedir.

İlgili yazı ve ekleri incelenmiş olup, kurum görevlişi istenen ekli krokilerde belirtilen alanda herhangi bir tabiat varlığı bulunmadığı ve alanın doğal sit alanında kalmadığı tespit edilmiştir.

#### CED Yönetmeliği açısından değerlendirildiğinde:

Söz konusu "güneş enerji santrali" faaliyetleri 29.07.2022 tarih ve 31907 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren ÇED Yönetmeliğinin Ek-1 (Çevresel Etki Değerlendirmesi Uygulanacak Projeler Listesi) Listesi "Madde 43- Proje alanı 20 ile hektar ve üzerinde veya kurulu gücü 10 MWm ve üzerinde olan güneş enerji santralleri ve Ek-2 (Çevresel Etkileri Ön İnceleme ve Değerlendirmeye Tabi Projeler) Listesi "Madde 41- Proje alanı 2 hektar ve üzerinde veya kurulu gücü 1 MWm ve üzerinde olan güneş enerji santralleri (çatı ve cephe sistemleri hariç)", hükümleri kapsamında olmakla beraber planlanan 1,99 hektar proje alanı ve 0,96 MWm kurulu güç kapasitesi Yönetmelikte belirtilen eşik değerin altında yer aldığından ÇED Yönetmeliği hükümlerinin uygulanmasına gerek yoktur. Söz konusu faaliyette proje alanı ve kurulu güç değişikliğinin Yönetmelikte belirtilen eşik değer ve üzeri planlanması halinde Bakanlığımıza/Müdürlüğümüze tekrar başvuru yapılması gerekmektedir.

Yapılması planlanan söz konusu planlara esas iş ve işlemler ile ilgili 29.07.2022 tarih ve 31907 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren ÇED Yönetmeliği kapsamında yapılacak herhangi bir işlem bulunmamakla birlikte, hazırlanacak olan imar planına "2872 Sayılı Çevre Kanunu ve buna bağlı olarak yürürlükte olan ÇED Yönetmeliği ve diğer mevzuat hükümleri doğrultusunda uygulama yapılacaktır" plan notunun işlenmesi gerekmektedir.

1/100.000 ölçekli İzmir-Manisa Planlama Bölgesi Çevre Düzeni Planı kapsamında değerlendirildiğinde:

Plan notlarının 7.2. maddesinde "Bu plandan ölçü alınarak uygulamaya geçilemez..." denilmekle birlikte alanın yaklaşık olarak "Tarım Arazisi" kullanımında kaldığı görülmektedir.

Bakanlığımız (<https://mpgm.csb.gov.tr/1-100.000-olcekli-i-82132>) internet adresinde yayında bulunan ve Bakanlığımızca onaylanan İzmir Manisa Planlama Bölgesi 1/100000 ölçekli Çevre Düzeni Planı plan hükümleri incelendiğinde:

#### *8.7. Tarım Arazileri (5403 Sayılı Toprak Koruma ve Arazî Kullanımı Kanununa Tabi Araziler)*

*Herita B.*

Bu belge, güvenli elektronik imza ile hazırlanmıştır.

Doğrulama Kodu: DA59B681-C38E-497A-820D-47C3EF345216  
Tel : (232) 341 68 00 KEP Adresi : [izmircevrevesehircilik.izmir01.cep.tr](http://izmircevrevesehircilik.izmir01.cep.tr)  
Fax : (232) 503 93 93 Adalet Mah. Anadolu Cad. No : 41/2 Bayraklı/İZMİR  
E-posta : [izmir01csb.gov.tr](mailto:izmir01csb.gov.tr) Internet Adresi : [izmir.csb.gov.tr](http://izmir.csb.gov.tr)  
KÜP Adresi : [izmircevrevesehircilik.izmir01.cep.tr](http://izmircevrevesehircilik.izmir01.cep.tr)

Doğrulama Adresi: <https://www.turkiye.gov.tr>  
Bilgi İcm-Erkan YAŞACAN  
Şehir Plançısı  
Telefon No:(232) 341 68 00-2414



8.7.1. Bu kapsamındaki tarım arazileri, 5403 Sayılı Toprak Koruma ve Arazi Kullanımı Kanunu ve ilgili yönetmeliğinde tanımlanan tarım arazileri sınıflarına ayrılmamış olup tarım arazilerinin sınıflaması, ilgili kurum ya da kuruluşlarca yapılacaktır.

8.7.2. Bu kapsamındaki tarım arazileri ve fiilen sularan veya sulama projeleri ilgili kuruluşlar tarafından hazırlanmış ve yatırım programına alınmış/almak tarım arazilerinin tarımsal üretim amaçlı korunması esastır.

8.7.3. Yapılacak ifrazlarda 5403 sayılı Toprak Koruma ve Arazi Kullanım Kanunu ve ilgili yönetmelik hükümleri uyarınca işlem yapılacaktır.

8.7.4. Tarım arazilerinin amaç dışı kullanım taleplerinde, 5403 sayılı Toprak Koruma ve Arazi Kullanım Kanunu ve T.C. Tarım Ve Orman Bakanlığının izni çerçevesinde bu plan karar ve hükümlerine göre işlem yapılacaktır.

8.7.5. 5403 sayılı Toprak Koruma ve Arazi Kullanım Kanunu uyarınca belirlenmiş/belirlenecek tarım arazileri sınıflamalarına göre tarımsal amaçlı yapışmalar bu plana belirlenen koşullara göre gerçekleştirilecektir.

8.7.6. Zeytinlik alanlarında, 3573 sayılı "Zeytinciliğin İslahı ve Yabanilerinin Aşdattırılması Hakkında Kanun" hükümleri geçerlidir. Bu alanlarında, zeytinyağı fabrikaları ile zeytinyağı işletme testisleri, T.C. Tarım Ve Orman Bakanlığı'nın izni doğrultusunda, bu plana değişikliğe gerek kalmaksızın alt ölçekte planlar ile yapılabilir.

8.7.7. 5403 sayılı Toprak Koruma ve Arazi Kullanımı Kanunu uyarınca mutlak tarım arazisi ve marginal tarım arazisi olarak belirlenen tarım arazilerinde; T.C. Tarım ve Orman Bakanlığı, ilgili bakanlıklar ve bunların bağlı kuruluşları tarafından desteklenen projeye dayalı tarımsal faaliyetler kapsamında tarımsal amaçlı yapılar (tarımsal kalkınma kooperatiflerince uygulanan projeler, üretici birlikleri/kooperatifleri tarafından uygulanan projeler, Avrupa Birliği kaynaklı projeler, Dünya Bankası destekli projeler, sosyal riski azaltma projesi kapsamında uygulanacak projeler gibi) ile destekleme projeleri ile en az 100 büyüğbey, 200 kuşakbaş ve üzeri kapasiteli hayvancılık veya 50.000 adet ve üzeri kapasiteli kanatlı hayvancılık yatırımlarında yapışma emsali %50 oranında artırdabilir.

8.7.8. Bu planın onay tarihinden önce, ilgili bakanlıklar ve bunların bağlı kuruluşları tarafından desteklenen projeye dayalı tarımsal faaliyetler kapsamında tarımsal amaçlı yapılar (tarımsal kalkınma kooperatiflerince uygulanan projeler, üretici birlikleri/kooperatifleri tarafından uygulanan projeler, Avrupa Birliği kaynaklı projeler, Dünya Bankası destekli projeler, sosyal riski azaltma projesi kapsamında uygulanacak projeler gibi) ile destekleme projeleri kapsamında yapılan başvurulara ilişkin iş ve işlemler başvuru yapılan idarelerce değerlendirilerek sonuçlandırılır.

8.7.9. Fiilen sularan veya sulama projesi kapsamında kalan tarım arazilerinde bu plan hükümlerinin 8.7.7 maddesinde tanımlanan emsal artışlarından faydalınamaz.

8.7.10. Bu planın onayından önce yürürlükteki mevzuat uyarınca inşaat ruhsatı veya yapı kullanma izni verilmiş olan tarımsal amaçlı yapılara ilişkin haklar saklıdır.

8.7.11. Tarım arazilerinde yapılacak tarımsal amaçlı yapılar için bu plan ile verilmiş olan yapışma koşulları aşılmamak ve maksimum bina yüksekliği projeyi onaylayan idaresince ihtiyaç doğrultusunda belirlenmek kaydıyla, 3194 sayılı İmar Kanunu Plansız Alanlar İmar Yönetmeliğinin 6. bölümünde belirtilen esaslara uyulur.

*Hu beleg, güvenli elektronik imza ile onaylanmıştır.*

Doğrulama Kodu: DA59B681-C38E-497A-K20D-47C3EF345216  
Doğrulama Adresi: <https://www.turkiye.gov.tr>  
Tel : (232) 341 68 00 KEP Adresi : izmircevrevesehircilik@hstb1.cep.tr  
Fax : (232) 503 93 93 Adalet Mah. Anadolu Cad. No : 41/2 Bayraklı/İZMİR  
E-posta : izmir@csb.gov.tr İnternet Adresi : izmit.csb.gov.tr  
KEP Adresi : [izmircevrevesehircilik@hstb1.cep.tr](mailto:izmircevrevesehircilik@hstb1.cep.tr)

Bilgi İstg: Erkan YAŞACAN  
Şehir Plançısı  
Telefon No:(232) 341 68 00-2414  


8.7.12.5403 sayılı *Toprak Koruma ve Arazî Kullanımı Kanunu*'nın geçici 1. maddesi ve geçici 4. maddesi kapsamında tarım dışı amaçla kullanım açılmış alanlarda ve T.C. Tarım Ve Orman Bakanlığı veya Tarım Ve Orman İl Müdürlüğü'nün söz konusu kanun kapsamında görüş veremediği alanlarda, bu plan hükümlerinin 8.7.22. Marjinal tarım arazileri hükümleri uygulanır.

8.7.13. İçme ve kullanma suyu temin edilen kta içi yüzeysel su kaynaklarının bulunduğu havzalarda, kısa mesafeli koruma kuşaklarında yapılan tarimsal faaliyetlerde, organik tarım özendirilecektir.

8.7.14. Organik tarım faaliyetleri 5262 sayılı Organik Tarım Kanunu ile organik tarımın esasları ve uygulanmasına dair yönetmelik koşullarına uygun olarak gerçekleştirilecektir.

8.7.15. Tarım arazilerinde örtü altı tarım yapılması durumunda seralar emsale dahil değildir.

8.7.16. Tarimsal amaçlı yapılar amacı dışında kullanılamaz ve başka bir kullanma dönüştürülemez.

8.7.17. Tarım arazisi olarak gösterilmeyen alanlarda, mera vasıflı alanlar bulunması durumunda, bu alanlarda 8.9. çayır-mera alanları plan hükümleri doğrultusunda uygulama yapılır.

8.7.18. Tarım arazilerinde tarimsal amaçlı faaliyetin gerektirdiği (hayvancılık, seracılık gibi) yapılar ile çiftçinin barınabileceğî yapılar dışındaki yapılara izin verilmez " denilmektedir.

Bahse konu çalışmalarla yönelik olarak, yukarıda belirtilen hususlar ile birlikte, 3194 sayılı İmar Kanunu, Bakanlığımız (<https://mpgm.csb.gov.tr/1-100.000-olcekli-i-82132>) internet adresinde yanında bulunan ve Bakanlığımızca onaylanan İzmir Manisa Planlama Bölgesi 1/100.000 ölçekli Çevre Düzeni Planının "8.7. Tarım Arazileri (5403 Sayılı Toprak Koruma ve Arazî Kullanımı Kanunu Tabii Araziler) ve 8.18.7. Enerji Üretim Alanları ve Enerji İletim Testisleri" başlıklı ve ilgili bütün plan hükümleri, Mekânsal Planlar Yapım Yönetmeliği, şehircilik ilkeleri, planlama esasları ve ilgili diğer tüm mevzuatın ve kurum görlülerinin dikkate alınması gerekmektedir.

Bilgilerinizi ve gereğini rica ederim.

Ömür ÖZDİL

Vali a.

Çevre, Şehircilik ve İklim Değişikliği İl Müdürü

Bu belge, güvenli elektronik imza ile hazırlanmıştır.

Doğrulama Kodu: DA59B681-C38E-497A-820D-47C3EF345216  
Tel : (232) 341 68 00 KEP Adresi : izmircevresehirilikorhisi01.cep.tr  
Fax : (232) 503 93 93 Adalet Mah. Anadolu Cad. No : 41/2 Bayraklı/İZMİR  
E-posta : [izmir@cep.gov.tr](mailto:izmir@cep.gov.tr) İnternet Adresi : [izmir.cep.gov.tr](http://izmir.cep.gov.tr)  
KEP Adresi : [izmircevresehirilikorhisi01.cep.tr](http://izmircevresehirilikorhisi01.cep.tr)

Doğrulama Adresi: <https://www.turkiye.gov.tr>  
Bilgi için: Erkan YAŞACAN  
Şehir Plancısı  
Telefon No: (232) 341 68 00-2414



3/3

**Statement of Opinion**



T.C.  
İZMİR BÜYÜKŞEHİR BELEDİYESİ  
İZMİR SU VE KANALİZASYON İDARESİ GENEL MÜDÜRLÜĞÜ  
Emlak ve İstımlak Dairesi Başkanlığı  
Harita ve Yeraltı Tesisi Şube Müdürlüğü

Sayı : E-29167681-045.01-742619

Konu : Ödemiş, İşık Mah. 2 Parsel GES Hk.

İMAR VE ŞEHİRCİLİK MÜDÜRLÜĞÜ

27.04.2023

18.04.2023

ODEMİŞ BELEDİYE BAŞKANLIĞI  
İmar ve Şehircilik Müdürlüğü'ne

İlgisi : Ödemiş Belediyesi, İmar ve Şehircilik Müdürlüğü'nün 14.02.2023 tarih ve 56693 sayılı yazısı.

İlgili yazı ile Ödemiş İlçesi, İşık Mahallesi sınırları içerisinde bulunan, mülkiyeti Ödemiş Belediyesi adına kayıtlı 2 nolu parsel üzerinde Güneş Enerji Santrali kurulması planlandığı ve bahse konu parselin İzmir Doğu Bölgesi 1/25000 ölçekli Nazım İmar Plamına göre "Tarım Alanı"ndı kaldığından bahsedilerek, yazı ekinde sınırları gönderilen alanda Güneş Enerji Santrali amaçlı hazırlanacak olan imar planı çalışmalarına veri teşkil etmek üzere kurum görüşümüze bildirilmesi istenilmektedir.

Dereeler ve dere ıslahları açısından konuya ilişkin olarak 1/25000 ölçekli halihazır haritalarda yapılan incelemede; görüşümüze sorulduğum parselin kuzyedüğü köşesinden bir derenin geçtiği görülmüş olup bahse konu dere ile ilgili olarak aşağıda belirtilen hususlara uyulması ve plan notlarına aktarılması gerekmektedir:

1. Yazımız ekinde gönderilen 1/25000 ölçekli halihazır haritada güzergahı görünen derede, dere şev üst çizgileri arasında kalan alanların dere güzergahı olarak kabul edilerek imar planına işlemesi; derenin bakım ve temizliği için dere şev üst çizgisinden itibaren parsel tarafından en az 6 (altı) metre genişliğinde olmak üzere imar yolunun planda ayrılması, (EK 1)

2. İmar planı onayı ve imar uygulamalarına müteakip, inşaat aşamasında, faaliyetler sırasında ve sonrasında;

-Dere yataklarının korunması ve hidrolik akışının engellenmemesi, yüzeyel suların drenajının sağlanması, dere yatağına rusabat ve malzeme akışı olması durumunda ise derenin derhal temizlenmesi,

-Dere yataklarına hafriyat toprağı, inşaat ve yıkıntı atıkları depolama sahası olarak kullanılmaması, suyun tam ve serbest akışı engelleyleci her türlü müddahaleden kaçınılmazı, arazide meydana gelebilecek heyelan ve erozyona karşı gerekli her türlü tedbirin alınması,

3. 09.09.2006 Tarih ve 26284 Sayılı Resmi Gazetede yayımlanan 2006/27 sayılı Başbakanlık Genelgesi ile 20.02.2010 tarih ve 27499 Sayılı Resmi Gazetede yayımlanan 2010/5 sayılı Başbakanlık Genelgesi 4373 sayılı Taşkin Sulara ve Su Baskınlarına Karşı Koruma Kanunu hükümlerinde belirtilen hususlara, 167 Sayılı Yeraltı Suları Kanunu, 2872 sayılı Çevre Kanunu, Su Kirliliği ve Kontrolü Yönetmeliği ve diğer Mevzuatın ilgili hükümlerine uyulması,

4. İlgili kurum tarafından can ve mal güvenliği için her türlü güvenlik tedbirinin alınması,

5. İmar planlarının nihai olarak değerlendirilebilmesi amacıyla Taşkin ve Rüsubat Kontrolü Yönetmeliği'nin ilgili hükümleri gereği DSİ 2. Bölge Müdürlüğü'nün görüşünün alınması, gerekmektedir.

Ayrıca; yerleşim yeri dışında bulunan söz konusu taşınmazın bulunduğu alanda atık suların toplanarak arıtılması ve yağmur sularının toplanarak uzaklaştırılması yönelik İdaremizce halihazırda

*bu ilgili givaneli elektronik imza da inanılmaktır.*

Bölge Doğrulama Kodu: BSU7989M62 Pin Kodu: 58762

Bölge Tipik Adresi : <http://ebilgisiyuzyz.gov.tr/?ID=BSU7989M62&eS=742619>

Bölge İcra: Yerelmen SOLMAZ

Ünvan: Şehir Planı

Adres: Çetin Emniyet Mah. Fethi Bey Sk. No: 1 / 2 Balçova İZMİR  
Telefon: (0232) 293 2559 Faks: (0232) 293 2820  
E-Posta: emsakimilakdairesi@izsu.gov.tr Elektronik Ad: [www.izsu.gov.tr](http://www.izsu.gov.tr)

Kep Adresi: izsu@01.kep.tr

*X Hacı B.  
Pap 13.*

yürüttülen ve planlanan herhangi bir proje çalışmamız bulunmamaktı olup planlama alanında ihtiyaç duyulacak teknik alt yapı tesislerinin yatırımcı tarafından kendi bünyesinde çözümlenmesi gerekmektedir.

Mevcut hat ve tesislerimiz açısından yapılan incelemde, Ödemis İncesı, İsk Mahallesi 2 parsel sınırları içerisinde İsk Mahallesi su ihtiyacının karşılandığı içme suyu derin kuyusu ile parselin hemen üst bitişinde bulunan Yenikoy Mahallesi su deposunu (Aktas Deposu) besleyen 6360 sayılı yasa ile mülga II Özel İdareyi tarafından inşa edilmiş mevcut iletim ve şebekе hatlarını geçmekte olup, yazımız ekinde işaretlmektedir (Ek 2). Söz konusu parsel ile komşu parsel arasında kamusal yol bulunmaması nedeniyle iki parsel arasında hatların deplase edilebileceği servis yolu veya koridor alanı bırakılması halinde mevcut hatlar bu alana deplase edilebilecektir. Görüş sorulan alanın içerisinde bulunan mevcut İsk 2 nolu kuyumuzun 5 x 5 m olacak şekilde hazırlanacak imar planlarına BHA (İZSU) olarak işlemesi gerekmektedir.

Bu süreçte, anılan alandan geçen veya gelebilecek olağan alt yapı hatlarının ileride sorun yaratmaması, korunması ve alanda yapılacak lokal çalışmalarında mevcut hatlara zarar gelmemesi için, arazide herhangi bir kazı, sondaj vb. çalışmalar yapılması gereken durumlarda kazı çalışmalarına başlamadan önce İdaremiz 2. Bölge İşletmeler Bakım ve Onarım Dairesi Başkanlığı ile irtibata geçilmelidir.

Ayrıca, yazımız ekinde konumu gönderilen noktada bölgenin içme suyu ihtiyacını karşılayabilmek amacıyla İdaremiz yürüttülen kuyu sondaj çalışmaları bulunmaktadır. (EK 3) Gunes Enerji Santrali kurulması planlanan mülkiyeti Ödemis Belediyesi adına kayıtlı taşınmazda içme suyu kuyusu sondaj çalışmalarının olumlu sonuçlanması halinde ilgili belediyesi ile tesis işlemleri süreci başlatılabilcec olup içme suyu kuyumuzun hayatı geçirilmesi halinde alanda bulunan mevcut kuyumuz ve yeni açılacak kuyumuz için "Yeraltı Sularının Kirlenmeye Bozulmaya Karşı Korunması Hakkında Yönetmeliği" hükümlerine uyulmasına gerekmektedir.

Söz konusu alan ile ilgili İdaremiz görüşlerini içeren bilgiler teknik tespit niteliğinde olup, yasal mevzuat uyarınca istenilen amaca esas planlama çalışmalarına veri teşkil etmesi için hazırlanmıştır. Bilgi ve gereğini rica ederim.

Ali Hıdır KÖSEOĞLU  
Genel Müdür

Ek:

- 1- EK1 Dere Hattı
- 2- EK2 İçme Suyu Hattı ve Mevcut Kuyu/Su Deposu
- 3- EK3 Sondaj Yapılması Planlanan Alan

Bu belge güvenli elektronik imza ile imzalanmıştır

Belge Doğrulama Kodu: İZSU7989M6Z Par. Kodu: 53762

Belge Takip Adresi: <https://belgesorgun.izsu.gov.tr/cD=BSU7989M6Z&eS=702619>

Bilgi içi: Yasemin SÖLMAZ

Unvan: Şehir Plancısı

Adres: Çetin Emet Mah. Ferdi Bey Sk. No: 1 / 2 Balıkesir İZMİR

Tel: 0232 793 2559 Faks: 0232 791 2820

E-Posta: [unvanimiz@izsu.gov.tr](mailto:unvanimiz@izsu.gov.tr) Elektronik Ağ: [www.izsu.gov.tr](http://www.izsu.gov.tr)

Kep Adresi: [izsu@h01.kep.tr](mailto:izsu@h01.kep.tr)

TASNİF DIŞI



T.C.  
İZMİR VALİLİĞİ  
İl Tarım ve Orman Müdürlüğü



Sayı : E-67970180-230.04.02-9277984  
Konu : İşık Mah., 2 Parsel (Ges) Hk.

ÖDEMİŞ BELEDİYE BAŞKANLIĞINA  
(İmar ve Şehircilik Müdürlüğü)

İlgisi : a) İzmir Valiliği (Tarimsal Altyapı ve Arazi Değerlendirme Şube Müdürlüğü)'nin 30.06.2022  
taraklı ve E-67970180-230.04.02-6021581 sayılı yazısı.  
b) 15.02.2023 tarihli ve 24314934-115.01.04-56746 sayılı yazınız.

İzmir İli, Ödemiş İlçesi, İşık Mahallesinde bulunan tapuda Tarla niteligindeki 2 parselde kayıtlı 3,2080 ha alanın ilgi (b) yazımızda marjinal tarım arazisi görüşü verilen 20.000,00 m<sup>2</sup> lik kısmına Güneş Enerji Santrali (GES) planaması yapılmak istendiği belirtilerek ilgi yazınız ile tarım dışı amaçlı arazi kullanım izni talep edilmektedir.

Bahse konu arazinin Müdürlüğümüz teknik elemanıncı yerinde incelemesi ile hazırlanan tarımsal etüt tutanağının İl Müdürlüğümüz tarafından değerlendirilmesi sonucu; Ödemiş İlçesi İşık Mahallesinde bulunan 2 parselde kayıtlı 2 hektar taşınmazın **kuru marjinal tarım arazisi (KTA) niteliginde olduğu tespit edilmiştir.** 5403 sayılı "Toprak Koruma ve Arazi Kullanımı Kanunu"nun 13. maddesinin 2. Fikası doğrultusunda **Güneş Enerji Santrali (GES) yapılması uygun görülmüştür.**

Ancak söz konusun talep Tarım Dışı Başvuru olup, 5403 Sayılı Kanunun 13. Maddesi ile 09.12.2017 tarih ve 30265 sayılı Resmi Gazetede yayımlanarak yürürlüğe giren Tarım Arazilerinin Korunması, Kullanılması ve Planlanmasına Dair Yönetmeliğin 12. Maddesinin 8. Fikası " arazi kullanımına ilişkin verilen izinlerin,izin tarihinden itibaren iki yıl içerisinde, tarım dışı amaçlı kullanımlarda planların onaylanması durumunda geçersiz kabul edilir.

Verilen izinler amacı dışında kullanılamaz. Amaç dışında kullanımının tespit edilmesi halinde, Kanunun 20 ve 21inci maddelerine göre işlem yapılır." hükmü gereğince yazımızın tarihinden itibaren 2 yıl içerisinde planın onaylanması gerekmektedir. Süresi içerisinde planın onaylanması durumunda görüşümüzüze gecerliliğini yitirecek olup belirtilen sürenin bitiminden sonra planın onaylanması istenmesi halinde yeniden Müdürlüğümüz görüşünün alınması gerekmektedir.

5403 Sayılı Kanun un 13. Maddesinde yer alan istisnalar kapsamında verilen izinlerin yalnızca talep edilen amaç doğrultusunda kullanılması gerekmekte olup, farklı bir amaçla kullanılmak istenilmesi durumunda Kanun kapsamında yeniden izinlendirilmesi gerekmektedir.

Bilgilerinizi rica ederim.

İMAR VE ŞEHİRCİLİK MÜDÜRLÜĞÜ

28.03.2023

Bu belge, güvenli elektronik mazbâdır onaylanmıştır.  
Düzenleme Kodu: 7B592144-DFB3-4ED6-9744-2AF5AC35E38B  
Düzenleme Adresi: <https://www.turkiye.gov.tr/tarim-ebys>  
İmar ve Orman Müdürlüğü Kazım Dirik Mahallesi Sanayi Caddesi No:34  
35100 Bursa / TURKEY  
Tel: (0222) 435 10 02 Faks: (0222) 462 24 93  
E-Posta: [imarveortamministresi.gov.tr](mailto:imarveortamministresi.gov.tr) Kep: [tarimveormanbakani@imar.gov.tr](mailto:tarimveormanbakani@imar.gov.tr)  
KEP Adresi: <http://tarimveormanbakani.gov.tr/kep/>

Bilgi için Zehra ABAN  
ERDOĞAN  
Möhendis



TASNİF DIŞI



T.C.  
KARAYOLLARI GENEL MÜDÜRLÜĞÜ  
2. Bölge Müdürlüğü



Sayı : E.16803100- 754 / 1144399  
Konu : İşık Mah. 2 Parsel (Ges) Hk.

12.04.2023

ÖDEMIŞ BELEDİYE BAŞKANLIĞINA  
(İmar ve Şehircilik Müdürlüğü)

İlgisi: İmar Ve Şehircilik Müdürlüğü nün 14/02/2023 tarihli ve 24314934 - 56693 sayılı  
yazısı.

İmar

İlgisi yazı ile İzmir ili, Ödemiş ilçesi, İşık mahallesi sınırları içinde bulunan 2 parsel  
numaralı taşınmaz üzerinde "Güneş Enerjisi Santrali (GES)" kurulması amaçlı yapılacak imar  
planı çalışmalarına esas kurum görüşümüz bilirilmesi istemektedir.

Söz konusu taşınmazın sorumluluk ağızımız içerisindeki yollara cephesi bulunmadığı  
tespit edilmiş olup yapılacak çalışmalar hususunda İdaremize herhangi bir sakınca  
bulunmamaktadır.

Bilgilerini rica ederim.

Suat CÜRE  
Bölge Müdürü a.  
Bölge Müdür Yardımcısı

İMAR VE ŞEHİRCİLİK MÜDÜRLÜĞÜ

13. /04./2023

"Bu belge, güvenli elektronik imza ile imzalanmıştır."  
Belge Değiştirme Kodu: "Intzpa15716"  
Belge Değiştirme Adresi: "<https://www.turktaresim.com.tr/kgn-eboy>"  
Kazem Dink Mahallesi Sezayi Cad. No: 41 Bağcık/İZMİR  
Bilgi İsmi: Mehmet OZISPARTALI  
Bilgi İsmi: Mehmet OZISPARTALI  
Kanulatırma Mühendisi  
Tel - Faks: 353/44-  
Telefon No : 232 4935000 Faks: 232 4627277  
e-posta: [monspatali@kgn.gov.tr](mailto:monspatali@kgn.gov.tr)  
İnternet Adresi : [www.kgn.gov.tr](http://www.kgn.gov.tr) KEP: kgn2bölge@hst1.kgn.tr  
İlili Birim: Taşınmazlar İmzahendisi - 

1/1

Zoning Plan Change Documents



T.C.  
İZMİR BÜYÜKŞEHİR BELEDİYESİ  
İmar ve Şehircilik Dairesi Başkanlığı  
İmar Planlama Şube Müdürlüğü

Sayı : E-87022314-115.01.06-2450014  
Konu : Ödemli İlçesi, İplik Mah., 2 parselde Güney  
Enerji Santrali amacı 1/5000 ölçekli NİP ve  
1/1000 ölç. UIP Oranasi: Hk.

25/03/2025

ÖDEMİŞ BELEDİYE BAŞKANLIĞINA  
Cumhuriyet Mah. Atatürk Cad. No:14 Ödemiş/İZMİR (Ekler 2 tane)

**Hgi** : Ödemiş Belediye Başkanlığı'nın 30.10.2024 tarihli ve 106832 sayılı yazısı eki.

İlgili yazı ekinde Belediye Başkanlığımıza iletlenen, mülkiyeti Ödemiş Belediyesine ait Ödemiş şubesinin, 134 Mahalleci, 2 parselde Yenileşmenin Enerji Kaynaklarından Dayalı Uzun Dönem Tesis Alanı (Güneş Enerji Santrali) belirleme konusunda yine Baskeslim U.P3-35100789 plan işlem numarası 1/5000 olup İmar Planı ile Ödemiş Belediye Meclisi'nin 07.10.2024 tarih ve 114 sayılı kararı ile kabul edilen Başkentlik U.P3-351070301 plan işlem numarası 1/1000'ünüzdeki Uygulama İmar Planı; İzmir Büyükelçi Belediye Meclisizmizin 13.01.2025 tarih ve 94-16 sayılı kararı ile uygulanın göরülecek 5216 sayılı Büyükelçi Belediyesi Kanunu'nun 7/b maddesi uyarınca onanmış.

Dr. Cemil TUGAY  
Büyükşehir Belediye Başkanı

**Ek:**

D=20 mm

Geregi: **Bilgi:**  
İzmir Çevre, Şehircilik ve İklim Değişikliği İl  
Yapı Kontrol Dairesi Başkanlığı (Ek-2,Ek-3,Ek-4  
Müsüdüne Anadolu Caddeesi No 41/5 Bayraklı / Izmir konulmadı)  
(Ekler 1 takum)  
Ödemiş Belediye Başkanlığı Cumhuriyet Mah.  
Atatürk Cad. No 14 Ödemiş/ZMİR (Ekler 2 takum)

Downloaded from https://academic.oup.com/imrn/article/2020/11/3663/3260633 by guest on 11 August 2021

*M. Umar*  
MAR VE ŞEHİRLİK MÜDÜRLÜĞÜ  
08.04.2025

27 Mart 2021  
Nihal ÇELİKŞENÇEVİLTİ  
Bölge Müdürü

acute myocarditis septic.

Miyazaki Shigenobu

Habil. Konrad Schmitz

Telephone NYC 873329311200 Fax NYC 873329453999

e-Posta: [suppljoma@suppljoma.com.tr](mailto:suppljoma@suppljoma.com.tr)

237

10

卷之三

T.C.  
İZMİR BÜYÜKŞEHİR BELEDİYESİ

Karar No : 97509404.105.94.16  
Karar Tarihi : 13/01/2023

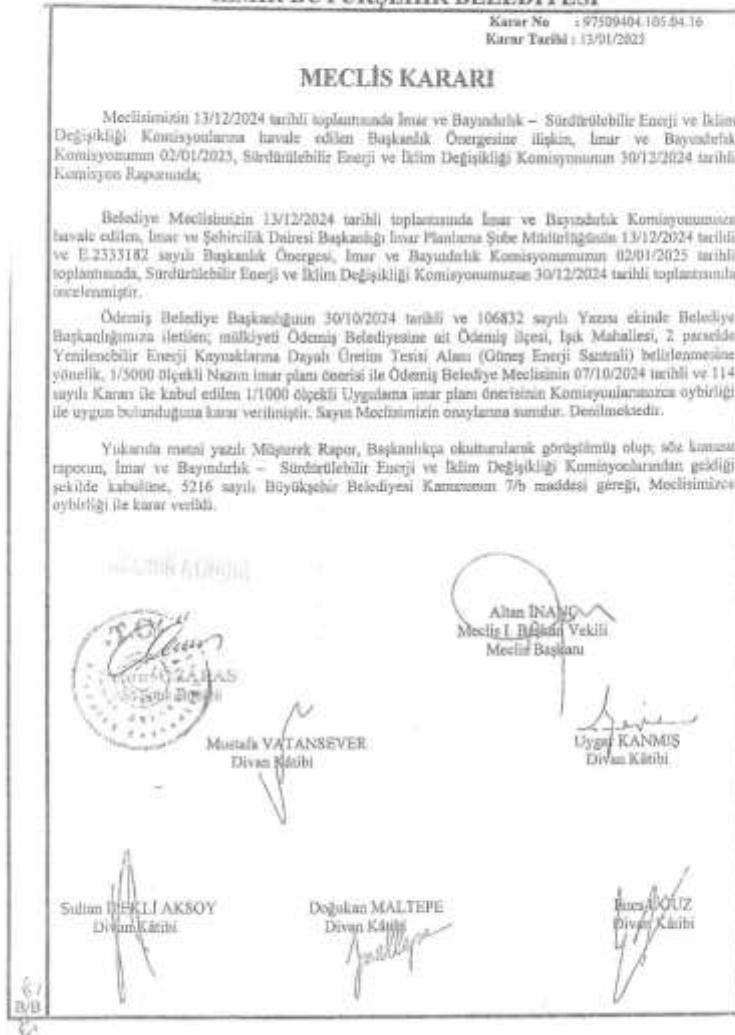
MECLİS KARARI

Meclisimizin 13/12/2024 tarihli toplantıda İmar ve Bayındırık – Sürdürülebilir Enerji ve İklim Değişikliği Komisyonumuz havale edilen Başkaşık Önergesine İlişkin, İmar ve Bayındırık Komisyonumuz 02/01/2023, Sürdürülebilir Enerji ve İklim Değişikliği Komisyonumuz 30/12/2024 tarihli Komisyon Raporunda,

Belediye Meclisimizin 13/12/2024 tarihli toplantıda İmar ve Bayındırık Komisyonumuz havale edilen, İmar ve Şehircilik Dairesi Başkanlığı İmar Planlama Şube Müdürlüğü'nde 13/12/2024 tarihli ve E.2533182 sayılı Başkaşık Önergesi, İmar ve Bayındırık Komisyonumuz 02/01/2023 tarihli toplantıda, Sürdürülebilir Enerji ve İklim Değişikliği Komisyonumuz 30/12/2024 tarihli toplantıda oncelenmiştir.

Ödemiş Belediye Başkanlığından 30/10/2024 tarihli ve 106832 sayılı Yazılı ekinde Belediye Başkanlığına iletilen, mülkiyeti Ödemiş Belediyesine ait Ödemiş İşlet, İşak Mahallesi, 2. parselde Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Tesisi Alım (Güneş Enerji Sistemi) bültenlenmesine yönelik, 1/5000 olçaklı Nazım İmar planı öncesi ile Ödemiş Belediye Meclisinin 07/10/2024 tarihli ve 114 sayılı Kararı ile kabul edilen 171600 ölçekli Uygulama İmar planı öncesi Komisyonumuzca oybirliği ile uygun bulunduğu karar verilmiştir. Sayın Meclisimizin onaylaması sunulur. Demektedir.

Yukarıda metin yazılı Məşərək Rapor, Başkanlığı okuturularak görüşülmüş olup, söz konusu raporun, İmar ve Bayındırık – Sürdürülebilir Enerji ve İklim Değişikliği Komisyonumuzdan geldiği şekilde kabuline, 5216 sayılı Büyükşehir Belediyesi Kanunu'nun 7/b maddesi gereği, Meclisimizce oybirliği ile karar verilmiştir.



## DUYURU

Belediye Meclisimizin 07.10.2024 tarih ve 114 sayılı kararı kabul edilen ve İzmir Büyükşehir Belediye Meclisinin 13.01.2025 tarih ve 04.16 sayılı kararı ile onaylanan; mülkiyeti Belediyemize ait İijk Mahallesi, 2 parsel numaralı taşınmazın bir kısmını kapsayan alan üzerine Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Alanı (Güneş Enerjisi Santrali) yapılması amacıyla hazırlanan UIP – 351070301 plan işlem numarası 1/1000 ölçekli Uygulama İmar Planına ait evraklar halkumuzun tetkiki için 10.04.2025 ve 12.05.2025 tarihleri arasında Belediyemiz girişindeki ilan panosunda asılmış ve internet sayfasında ilan edilmektedir. Aşki süresi içerisinde yapılan itiraz başvurularının zammı red süresi askıdan inis tarihinden itibaren 30 gün olup, zammı red süresinin son gününü izleyen günden sonra 60 gün olan genel davası açma süresi başlayacaktır.





T.C.  
ÖDEMIŞ BELEDİYE BAŞKANLIĞI  
İmar ve Şehircilik Müdürlüğü



Sayı : E-24314934-115.01.06-121876

10.04.2025

Konu : İşk Mah., 2 Parsel Yenilenebilir Enerji  
Kaynaklarına Dayalı Üretim Alan (Ges)  
1/1000 Ölçekli İmar Plans Hk.

Sayan Ferudun ESKİOĞLU  
(İşk Mahalle Muhtarlığı Ödemiş/İZMİR)

ÜİP – 351070301 plan işlem numaralı mülkiyeti Belediyemize ait İşk Mahallesi, 2 parsel numaralı taşınmazın bir kısmını kapsayan alan üzerine Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Alan (Güneş Enerjisi Santrali) yapılması amacıyla hazırlanan 1/1000 ölçekli Uygulama İmar Plansı Belediye Meclisimizin 07.10.2024 tarih ve 114 sayılı kararla kabul edilmiş olup, İzmir Büyükşehir Belediye Meclisinin 13.01.2025 tarih ve 04.16 sayılı karar ile onaylanmıştır.

3194 Sayılı İmar Kanununun 8. Maddesinde; "İmar planları ve bu planlardaki değişikliklerin nerede askıya çektirilme dair bilgilendirme ilanı, askı süresi ile eş zamanlı olarak ilgili muhtarlıkların panosunda duyurulur" denilmiştir.

Bu kapsamda ÜİP – 351070301 plan işlem numaralı mülkiyeti Belediyemize ait İşk Mahallesi, 2 parsel numaralı taşınmazın bir kısmını kapsayan alan üzerine Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Alan (Güneş Enerjisi Santrali) yapılması amacıyla hazırlanan 1/1000 ölçekli Uygulama İmar Plansı ait evraklar, ilgililerine incelemek, ilgililerine tebliğ edilerek üzeri 10.04.2025 ve 12.05.2025 tarihleri arasında Belediyemiz girişindeki ilan panosunda ve internet sayfalarında askıya çıkarılmıştır. Askı süresi içerisinde vatandaş başvurularının zamanı red süresi askıdan iniş tarihinden itibaren 30 gün olup, zimni red süresinin son gününü izleyen günden sonra 60 gün olan genel dava açma süresi başlayacaktır.

Gerekli duyurunun yapılması rica ederim.

Muhittin Cumhur ŞENER  
Belediye Başkanı a.  
Belediye Başkan Yardımcısı

Bu belge, gizlilik-ekonomik maza ile武装atacaktır.

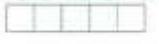
Doğrulama Kodu: 365a73d5-d127-4756-89a1-4e74ca3cc8f  
Doğrulama Linki: <https://www.turkiye.gov.tr/sicil/belgizleme>

Adres: Çamhacı Mah. Armutlu, Cd: No:34  
Telefon No: (322)544-80 97 Faks No: (322)545 12 48  
e-Posta: [ilgaci@odemis.bel.tr](mailto:ilgaci@odemis.bel.tr) Internet Adresi: <http://www.odemis.bel.tr>  
Kapı Adresi: [odemismahalleduyu@beli1.kop.tr](mailto:odemismahalleduyu@beli1.kop.tr)

Bölge İsmi: Eşan KÜRTÜKLÜ  
Şehir/Plaka: -  
Telefon No: -



**Appendix-3. Copies of Title Deed(s)**

İl:	İZMİR		<b>Türkiye Cumhuriyeti</b>  <b>TAPU SENEDİ</b>			Fotoğraf																																																																																																																																													
İlçesi:	ÖDEMIŞ																																																																																																																																																		
Mahallesi:																																																																																																																																																			
Köyü:	IŞIK																																																																																																																																																		
Sokağı:																																																																																																																																																			
Mevkil:	AKTAŞ																																																																																																																																																		
Satış Bedeli			Pefta No.:	Ada No.:	Parcel No.:	Yüzölçümü																																																																																																																																													
						ha	m <sup>2</sup>	dm <sup>2</sup>																																																																																																																																											
0.00			1	1	1	32.080,00 m <sup>2</sup>																																																																																																																																													
<b>GAYRİMENKULÜN</b>																																																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Niteliğ:</td> <td colspan="9">TARLA</td> </tr> <tr> <td rowspan="2" style="width: 10%; text-align: center;">Sınıfı:</td> <td colspan="9">Planlandıktır</td> </tr> <tr> <td colspan="9">Zemin Sistemi No : 29856200</td> </tr> <tr> <td colspan="10">Tamamı ÖDEMIŞ - İŞIK Kızılı Tuzel Kızılığı adına kayıtlı iken ÖDEMIŞ BELEDİYESİ adına Tashihen Devir (kurumlar arası) işleminden.</td> </tr> <tr> <td colspan="10"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Edinme Sebebi:</td> <td colspan="9"></td> </tr> <tr> <td rowspan="2" style="width: 10%; text-align: center;">Sahibi:</td> <td colspan="9">ÖDEMIŞ BELEDİYESİ</td> </tr> <tr> <td colspan="9">Tarihi:</td> </tr> </table> </td> </tr> <tr> <td colspan="2" style="text-align: center;">Geldisi:</td> <td style="text-align: center;">Yevmiye No.:</td> <td style="text-align: center;">Cilt No.:</td> <td style="text-align: center;">Sahite No.:</td> <td style="text-align: center;">Sıra No.:</td> <td style="text-align: center;">Tarihi:</td> <td colspan="3" style="text-align: center;">Gittiği:</td> </tr> <tr> <td>Cilt No.:</td> <td></td> <td style="text-align: center;">8388</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">19/06/2014</td> <td></td> <td style="text-align: center;">Cilt No.:</td> <td colspan="2"></td> </tr> <tr> <td>Sahite No.:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Sahite No.:</td> <td colspan="2"></td> </tr> <tr> <td>Sıra No.:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Sıra No.:</td> <td colspan="2"></td> </tr> <tr> <td>Tarih:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Tarih:</td> <td colspan="2"></td> </tr> <tr> <td colspan="10" style="text-align: center; padding: 10px;">           NOT: * Mülkiyetin geçerlilik süresi 100 yıl olup, bu süre sona ererse kalmaz          * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz          * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz       </td> </tr> </table>										Niteliğ:	TARLA									Sınıfı:	Planlandıktır									Zemin Sistemi No : 29856200									Tamamı ÖDEMIŞ - İŞIK Kızılı Tuzel Kızılığı adına kayıtlı iken ÖDEMIŞ BELEDİYESİ adına Tashihen Devir (kurumlar arası) işleminden.										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Edinme Sebebi:</td> <td colspan="9"></td> </tr> <tr> <td rowspan="2" style="width: 10%; text-align: center;">Sahibi:</td> <td colspan="9">ÖDEMIŞ BELEDİYESİ</td> </tr> <tr> <td colspan="9">Tarihi:</td> </tr> </table>										Edinme Sebebi:										Sahibi:	ÖDEMIŞ BELEDİYESİ									Tarihi:									Geldisi:		Yevmiye No.:	Cilt No.:	Sahite No.:	Sıra No.:	Tarihi:	Gittiği:			Cilt No.:		8388	1	2	19/06/2014		Cilt No.:			Sahite No.:							Sahite No.:			Sıra No.:							Sıra No.:			Tarih:							Tarih:			 NOT: * Mülkiyetin geçerlilik süresi 100 yıl olup, bu süre sona ererse kalmaz * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz									
Niteliğ:	TARLA																																																																																																																																																		
Sınıfı:	Planlandıktır																																																																																																																																																		
	Zemin Sistemi No : 29856200																																																																																																																																																		
Tamamı ÖDEMIŞ - İŞIK Kızılı Tuzel Kızılığı adına kayıtlı iken ÖDEMIŞ BELEDİYESİ adına Tashihen Devir (kurumlar arası) işleminden.																																																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Edinme Sebebi:</td> <td colspan="9"></td> </tr> <tr> <td rowspan="2" style="width: 10%; text-align: center;">Sahibi:</td> <td colspan="9">ÖDEMIŞ BELEDİYESİ</td> </tr> <tr> <td colspan="9">Tarihi:</td> </tr> </table>										Edinme Sebebi:										Sahibi:	ÖDEMIŞ BELEDİYESİ									Tarihi:																																																																																																																					
Edinme Sebebi:																																																																																																																																																			
Sahibi:	ÖDEMIŞ BELEDİYESİ																																																																																																																																																		
	Tarihi:																																																																																																																																																		
Geldisi:		Yevmiye No.:	Cilt No.:	Sahite No.:	Sıra No.:	Tarihi:	Gittiği:																																																																																																																																												
Cilt No.:		8388	1	2	19/06/2014		Cilt No.:																																																																																																																																												
Sahite No.:							Sahite No.:																																																																																																																																												
Sıra No.:							Sıra No.:																																																																																																																																												
Tarih:							Tarih:																																																																																																																																												
 NOT: * Mülkiyetin geçerlilik süresi 100 yıl olup, bu süre sona ererse kalmaz * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz * Türlü Kâğıtta devletin geçerlilik süresi 50 yıl olup, bu süre sona ererse kalmaz																																																																																																																																																			
D.M.G. Basım İş. No.:		Döner Sermaye İşletmesi tarafından basılmıştır.																																																																																																																																																	
																																																																																																																																																			
		Sayı No. 129																																																																																																																																																	

## Appendix-4. Photographic Log

<p><b>Date:</b> <b>21.01.2025</b></p> <p><b>Location:</b> Lot 2 of block 0</p> <p><b>Details/Notes:</b></p>	
<p><b>Photo No:</b> 03</p> <p><b>Date:</b> <b>21.01.2025</b></p> <p><b>Location:</b> Lot 2 of block 0</p>	

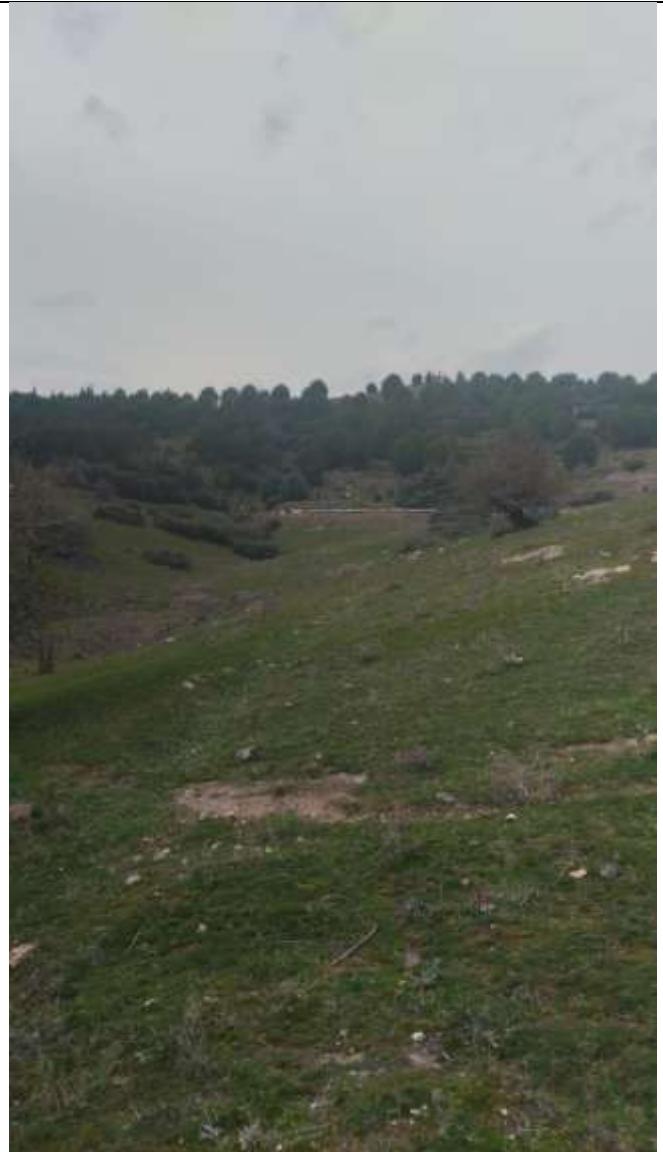
<b>Details/Notes:</b>	
<b>Photo No:</b> 04	
<b>Date:</b> 21.01.2025	
<b>Location:</b> Lot 2 of block 0	

<b>Details/Notes:</b>	
-----------------------	---

<b>Photo No:</b> 05	
<b>Date:</b> 21.01.2025	
<b>Location:</b> Lot 2 of block 0	

<b>Details/Notes:</b>	
<b>Photo No:</b> 06	
<b>Date:</b> 21.01.2025	
<b>Location:</b> Lot 2 of block 0	

**Details/Notes:**



**Appendix-5. Construction Notice Template**

**“Çevreye verdığımız rahatsızlıktan dolayı özür dileriz!”**

**ÖDEMIŞ BELEDİYESİ  
990.81 kWp/960 kWe GES ALTPROJESİ YAPIM İŞİ  
İşin Süresi:**

**Şikâyet, istek, soru ve yorumlarınız için:**

**YÜKLENİCİ :** Adres:  
ADI

Telefon:

E-posta:

İletişim Formu:

**iŞVEREN :** Adres: Cumhuriyet Mah. Atatürk Cad. No:14  
Ödemiş/İZMİR

Telefon: 444 33 95

E-posta: bilgi@odemis.bel.tr

İletişim Formu:

**İller Bankası A.Ş.** Adres: İller Bankası A.Ş. Emniyet Mahallesi, Hipodrom  
(İLBANK) Caddesi No:9/21, Yenimahalle/ANKARA

Telefon: 0 (312) 508 79 79

E-posta: [bilgiuidb@ilbank.gov.tr](mailto:bilgiuidb@ilbank.gov.tr)

İletişim Formu:

<https://www.ilbank.gov.tr/form/bilgiedinmeuluslararsi>



## Appendix-6. E&S Incident Notification Form

<b>1) Incident Details</b>		
<b>Date of Incident:</b> [Please insert]	<b>Time of Incident:</b> [Please insert]	
<b>Location of the Incident:</b>	[Please insert]	
<b>Sub-borrower Name:</b>	[Please insert]	
<b>Date Reported to ILBANK:</b> [Please insert]	<b>Reported to ILBANK by:</b> [Please insert]	<b>Notification Method:</b> [Please insert]
<b>Date Reported to WB:</b> [Please indicate]	<b>Reported to WB by:</b> [Please insert]	<b>Notification Type:</b> [Please insert]
<b>Contractor Name:</b>	[Please insert]	
<b>Sub-contractor name (please indicate if involved in the incident):</b>	[Please insert]	
<b>2) Type of incident (please check all that apply)</b>		
<input type="checkbox"/> Fatality <input type="checkbox"/> Lost time injury <input type="checkbox"/> Child labor <input type="checkbox"/> Forced labor	<input type="checkbox"/> Environmental pollution incident <input type="checkbox"/> Disease outbreaks <input type="checkbox"/> Acts of violence/protest <input type="checkbox"/> Other	
<b>3) Description/Narrative of Incident</b>		
<b>4) Actions taken to contain the incident</b>		
<b>For incidents involving a Contractor:</b>		
<b>Name of Contractor:</b> _____ <b>Have the works been suspended? Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>		
<b>5) What support has been provided to affected people</b>		
[Please briefly describe]		
<b>6) Please provide the supporting documents for the incident, victims and involved persons</b>		
(e.g. copies of the social security registration records, victim and witness statements, notification to authorities, legal investigation reports, training records, photographs, etc.)		

## **Appendix-7. Simplified Labor Management Procedure**

  
SLMP\_Template.DOC  
X

## Appendix-8. Roles and Responsibilities

Party	Role	Key Responsibilities
<b>Sub-borrower</b>		
Ödemiş Municipality	Sub-borrower Management	<ul style="list-style-type: none"> <li>• Hold ultimate responsibility for the E&amp;S performance of the subproject to the satisfaction of the ILBANK, including the performance of subproject contractors throughout the sub-financing agreement life cycle.</li> <li>• Establish Project Implementation Unit (PIU) following the execution of sub-financing agreements to carry out operational and administrative tasks to oversee the implementation of the E&amp;S instruments and monitoring progress; allocate resources for the recruitment of in-house environmental, social and OHS staff under the PIU</li> <li>• Ensure that E&amp;S instruments and procedures required by ILBANK is prepared within the timeframes agreed with ILBANK and allocate adequate financial and human resources – either from the Sub-borrower's own resources or from the Subproject loan and implement.</li> <li>• Cooperate with the ILBANK representatives to discuss and agree on the ESAP and other E&amp;S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower (with support from RD E&amp;S team as necessary)</li> <li>• Ensure that EHSS requirements of ILBANK are incorporated into relevant contractor tender and agreement documents to be prepared in collaboration with the construction supervision consultant</li> <li>• Hold and use the authority and responsibility to stop any subproject related work activity if it poses an imminent danger to health, safety, or the environment.</li> <li>• Allocate resource to ensure monitoring of subproject E&amp;S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions</li> <li>• Facilitate monitoring visits and audits by ILBANK and their consultants</li> <li>• Notify the ILBANK RD – E&amp;S Teams of any significant E&amp;S incident or accident within maximum 24 hours of the accident/incident; contractually require the supervision consultants and/or contractors to promptly report such incident and accidents (timeframe to be defined by ILBANK)</li> <li>• Prepare and submit a detailed E&amp;S Incident Investigation Form, supplemented by an RCA to be conducted pursuant to GIIPs, to ILBANK within <b>15 days</b> of the accident/incident date for significant accidents or incidents (in line with the template presented in the E&amp;S Supervision, Monitoring and Reporting Procedure). The investigation will be supplemented by a Root Cause Analysis (RCA).</li> <li>• Prepare and submit semiannual E&amp;S monitoring reports to ILBANK.</li> </ul>
	E&S Team - Environmental staff - Social staff - OHS staff	<ul style="list-style-type: none"> <li>• Participate in the training to be organized by ILBANK as part of ILBANK ESMS Training Procedure implementation</li> <li>• Ensure that E&amp;S documentation required by ILBANK is prepared by qualified independent specialists and submitted to ILBANK for appraisal and credit.</li> <li>• Provide ILBANK with relevant adequate information to undertake the E&amp;S due diligence in accordance with the ESMS (e.g. duly completed sub-borrower questionnaire and supporting documentation to be requested by ILBANK in accordance with the E&amp;S Screening and Risk Classification and ESDD procedures)</li> <li>• Support the sub-borrower management as required in the review and evaluation of ESAP and other E&amp;S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower</li> <li>• Ensure compliance of subprojects operations (including contractor activities on site) with national legislation and E&amp;S requirements of the lending WB as included in the sub-financing agreements, ESAP and subproject-specific E&amp;S documentation.</li> </ul>

Party	Role	Key Responsibilities
		<ul style="list-style-type: none"> <li>Undertake monitoring of subproject E&amp;S performance and reporting to ILBANK at WB standards in line with the sub-financing agreement conditions</li> <li>Ensure implementation of corrective actions in case of E&amp;S non-compliances in coordination and agreement with ILBANK DG and RD E&amp;S teams over reasonable timeframes</li> <li>Coordinate the construction supervision consultants, contractors and/or external E&amp;S consultants for collection of the monitoring data and compilation of or providing input to periodic monitoring reports as necessary and appropriate</li> <li>Allow ILBANK representatives (including individual consultants) to access subproject facilities and records</li> </ul>
Construction Supervision Consultants ("Müsavir")	Management and E&S staff	<p>Carry out the following tasks on behalf of the sub-borrowers:</p> <ul style="list-style-type: none"> <li>Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure</li> <li>Supervise the construction works of contractors on-site, including implementation of subproject-specific E&amp;S requirements by contractors on a daily basis</li> <li>Ensure sufficient E&amp;S capacity for implementation of E&amp;S requirements as set out in the sub-financing agreements between the sub-borrower and ILBANK</li> <li>Support the sub-borrowers for the supervision and review of E&amp;S management documentation prepared by construction contractors and submit them to sub-borrowers upon finalization</li> <li>Review monthly self-monitoring reports prepared by the construction contractors for early identification of E&amp;S issues and/or non-compliances and submit them to municipalities/municipal utilities upon finalization</li> <li>Prepare and submit regular monthly reports to Sub-borrower on the environmental, social and OHS issues of the Subproject during the construction phase</li> <li>Identify E&amp;S non-compliances on site and enforce construction contractors to undertake corrective actions within defined and agreed timeframes</li> <li>Support the sub-borrowers (as requested) in the preparation of periodic E&amp;S monitoring reports to be submitted to ILBANK in line with the ILBANK E&amp;S Supervision, Monitoring and Reporting Procedure</li> <li>Notify the sub-borrower of any significant E&amp;S incident or accident that have taken place in subproject related operations within 24 hours.</li> </ul>
Construction Contractor	Management and E&S staff	<ul style="list-style-type: none"> <li>Ensure sufficient E&amp;S capacity for implementation of E&amp;S requirements as set out in the construction contracts</li> <li>Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure</li> <li>Prepare subproject-specific E&amp;S management plans and procedures prior to start of construction works as required by the construction contracts</li> <li>Comply with the requirements of national legislation and implement the E&amp;S requirements as set out in the sub-financing agreements (executed between ILBANK and the sub-borrowers) and construction contracts</li> <li>Submit periodic (in frequencies to be set by ESAP) E&amp;S self-monitoring reports to the municipalities/municipal utilities through construction supervision consultants ("müşavir") – in line with the format provided by ILBANK.</li> <li>Fill in monthly occupational health and safety (OHS) forms – reviewed by construction supervision consultants.</li> <li>Implement corrective actions in case of E&amp;S non-compliances under the supervision of sub-borrower's construction supervision consultant</li> <li>Promptly notify the sub-borrower of any significant E&amp;S incident or accident that have taken place in subproject related operations (timeframe to be defined by ILBANK no later than 24 hours).</li> </ul>

## **Appendix-9. Chance Find Procedure**

### **Introduction**

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

### **Scope**

This Chance Find Procedure (CFP) will be implemented for Ödemiş Municipality 990.81 kWp/960 kWe subproject in order to manage any chance finds that may be encountered during the construction activities. The purpose of the CFP document is to:

- outline the applicable legislation and standards relevant to this procedure;
- define roles and responsibilities;
- define subproject commitments, operational procedures, training requirements and guidance relevant to this procedure; and
- define monitoring and reporting procedures.

Although there are no known archaeological sites or remains within the subproject area, it is considered that there may be a potential to encounter archaeological findings during the construction of the subproject. Activities which have high potential to lead to discover or adversely affect the archeological resources are;

- topsoil stripping
- excavation and earthworks

This CFP is prepared in order to provide information to the contractors and employees regarding the actions to be taken in case of an archaeological chance find discovery.

### **Legislation and Standards**

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

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

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

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

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

## Roles and Responsibilities

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

Role	Responsibilities
<b>Contractor -Project Manager</b>	<ul style="list-style-type: none"><li>Overall responsibility for the development, review, approval and coordination of the numerous activities required to initiate, conduct and complete construction.</li><li>Ensure that this procedure is prepared, and updated as required, based on the activities undertaken as part of the subproject.</li><li>Ensure that adequate resources are made available to implement the procedures and guidelines outlined in this procedure.</li></ul>
<b>Contractor - Environmental and Social (E&amp;S) Expert</b>	<ul style="list-style-type: none"><li>Initiation, development, implementation and coordination of the CFP during construction.</li><li>Ensure that adequate training is given to all site personnel and sub- contractors, covering the procedures and guidelines outlined in this procedure. Establish appropriate control procedures and conduct audits as necessary.</li><li>Consultation with and reporting to relevant government bodies in case of potential archeological chance finds.</li><li>Record all confirmed chance finds by filling up the "Chance Find Reporting Form" and maintain copies in a log-book. Ensure that the chance finds log-book is up to date.</li></ul>
<b>Contractor - Site Manager</b>	<ul style="list-style-type: none"><li>Day-to-day implementation of the provisions of the CFP in the field during construction.</li><li>Notify the E&amp;S Expert regarding potential chance finds during construction.</li></ul>
<b>Employees</b>	<ul style="list-style-type: none"><li>Understand and comply with archeological chance finds procedures and guidelines outlined in this procedure.</li><li>Reporting of the potential chance finds to the Site Manager.</li></ul>

## Impact Avoidance and Mitigation

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

- All staff involved in land clearance and excavation activities will take the responsibility for managing archaeological protection and will be trained in these aspects by the E&S Expert.
- In case any potential chance find is encountered, all construction activities will cease immediately in the vicinity of the chance find.
- The Site Manager will be contacted immediately. The discovered site location, the characteristics of the potential archaeological material and photos will be recorded by the Site Manager, who in turn will inform the E&S Expert.
- İzmir Ödemiş Museum Directorate will be notified at the latest within three days after the chance find is encountered. Contact details of the İzmir Ödemiş Museum Directorate are given below:  
Address: Hürriyet Neighborhood Atatürk Street No:88 Ödemiş/İZMİR  
Telephone: +90 232 545 11 84  
E-mail: [odemismuzesi@ktb.gov.tr](mailto:odemismuzesi@ktb.gov.tr)
- The site and its vicinity will be secured 24 hours a day against damage or loss, until inspection by the authority.
- The E&S Expert will fill up a "Chance Find Report Form" for each confirmed chance find and inform the Project Manager about the date that the construction work can resume, which is determined by the authorities concerning the conservation of the heritage.
- Further steps to be followed and proper plan to be implemented for the management of the finds (Changes in the layout, conservation, preservation, restoration and salvage) will be decided and reported in writing by the authorities in charge.
- Photographs of the potential artifacts that are likely to be encountered in the construction site are presented in the following pages to be used during the training of the relevant staff.

## Verification and Monitoring

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

### **Reporting**

Contractor will comply with reporting requirements including chance finds defined in site-specific ESMP (contractor will develop monthly and quarterly monitoring reports and submit to Ödemiş Municipality through supervision consultant; Ödemiş Municipality will examine submit the reports to ILBANK quarterly (and monthly if requested by ILBANK); ILBANK will inform the World Bank by providing regular semi-annual monitoring reports.

**Ödemiş Municipality 990.81 kWp/ 960 kWe Solar Power Plant Subproject**  
**Chance Find Reporting Form**

**REGISTRATION**

**Name of recorder:**

**Date and time of discovery:**

Site Name:	Coordinates	
	X	Y

**Description of find:**

**Photograph:**

**Estimated weight and dimensions:**

**CONTACT PERSON**

**Name/Title/Duty:**

**Date and Time:**

**Contact information:**

**Details of conversation:**

**DECISIONS**

**Any protection measures to be implemented:**

**Movable or immovable:** If moved, please specify the new location.

**Further actions required:**

**Recommence date and time:**

**Notes:**

**SUBMISSION**

<b>Name:</b>	<b>Date:</b>
--------------	--------------

## Appendix-10. Change Notification Form

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

## Appendix-11. Emissions and Environmental Noise Calculations

### Air Quality/Emission

Air pollution will mainly originate from dust emissions and exhaust emissions as well as Greenhouse Gas (GHG) emissions. Considering the location of the subproject area, sensitive receptors are not expected to be affected. During the construction phase of the subproject, the impacts on air quality will mainly originate from dust, exhaust and greenhouse gas emissions:

- Dust emissions during site preparation, excavation, filling and compaction works carried out for construction works.
- Dust emissions from vehicle movements for transporting various construction materials to the project site.
- Exhaust emissions from vehicles used in construction activities.
- Greenhouse gas emissions from small amounts of vehicles and machinery.

Since a limited number of equipment and machinery will be operating on the sites, these air quality impacts will be limited to the area and in the short term. Therefore, the receivers will be limited to those located near the construction sites.

#### *Calculation of dust emission topsoil stripping*

In the calculation of the dust emissions to be generated, the emission factors given in Table 2.7 of the “Regulation on Control of Industrial Air Pollution” (Amended Table: RG-20.12.2014-29211) published in the Official Gazette dated 03.07.2009 and numbered 27277 were used and the results were evaluated within the framework of the same regulation.

The calculations were made using both “uncontrolled” emission factors, considering that the most adverse conditions could occur during dust formation, and “controlled” emission factors, assuming that the necessary control measures were taken.

The area where the SPP project site will be established is 13,440 m<sup>2</sup>. In this area, 10 cm topsoil stripping will be used to strip 1,344 m<sup>3</sup> of soil.

(Soil Bulk Density is taken as 1.6 tons/m<sup>3</sup>)<sup>5</sup>

1,344 m<sup>3</sup>\* 1.6 tons/m<sup>3</sup>=2,150 tons

Daily working time is planned as 8 hours. Excavation work is planned as 384 hours in total.

2,150 tons/384hours= 5.6 tons/h

*Table 1. Control of Industrial Air Pollution*

Sources	Uncontrolled	Controlled	Unit
Extraction	0.025	0.0125	kg/ton
Loading	0.0100	0.005	
Unloading	0.010	0.005	
Transportation (total round trip distance)	0.7	0.35	kg/km-vehicle
Storage	5.8	2.9	Dust/ha-day

<sup>5</sup><https://www.soilquality.org.au/factsheets/bulk-density-measurement>

Mass Flow Rate of Dust Emission to Occur During Extraction, Loading and Unloading of topsoil

Uncontrolled;  $E1 = 5.6 \text{ tons/hour} \times (0.025+0.01+0.01) \text{ kg/ton} = 0.252 \text{ kg/hour}$

Controlled;  $E1 = 5.6 \text{ tons/hour} \times (0.0125+0.005+0.005) \text{ kg/ton} = 0.126 \text{ kg/hour}$

Mass Flow Rate of Dust Emission to Occur During the Transportation of Topsoil

Topsoil taken from the field during construction work will be temporarily stored in the topsoil storage area that will also be located within the work area; this distance is an average of 0.3 km round trip. Assuming that each truck used during transportation can carry 25 tons of material and therefore will make 1 trip in approximately 1 working day (25 tons/23.32 tons/hour), the mass flow rate of dust emissions that will occur during transportation is;

Uncontrolled;  $E2 = (0.7 \text{ kg/km}) \times (0.3 \text{ km/1 trip}) \times (1 \text{ trip/1 hour}) = 0.21 \text{ kg/hour}$

Controlled;  $E2 = (0.35 \text{ kg/km}) \times (0.3 \text{ km/1 trip}) \times (1 \text{ trip/1 hour}) = 0.11 \text{ kg/hour}$

Dust Emission Mass Flow Rate to be Formed During the Storage of Vegetal Soil

Uncontrolled;  $E3 = (5.8 \text{ kg/ha-day}) \times (1 \text{ ha/8 weeks/ 6 days/week/8 hours/day}) = 0.0014 \text{ kg/hour}$

Controlled;  $E3 = (2.9/\text{ha-day}) \times (1 \text{ ha/8 week/6 days/week/8 hours/day}) = 0.0007 \text{ kg/hour}$

Accordingly, the total mass flow rate of dust emission to be formed from the stripping operations of the vegetal soil to be carried out;

Uncontrolled;  $ETOTAL-1 = 0.252 \text{ kg/h} + 0.21 \text{ kg/h} + 0.0014 \text{ kg/h} \approx 0.4634 \text{ kg/h}$

Controlled;  $ETOTAL-1 = 0.126 \text{ kg/h} + 0.11 \text{ kg/h} + 0.0007 \text{ kg/h} \approx 0.2367 \text{ kg/h}$

When calculating the dust emission to be generated during the vegetative soil stripping operations, it was taken into account that the works would be carried out under the most adverse conditions. As stated in the "Regulation on Control of Industrial Air Pollution; for newly established facilities, "Calculation of the Contribution Value to Air Pollution" is required if the pollutant mass flow rates are exceeded.

Considering that all the works to be carried out within the scope of the vegetal soil stripping operations to be carried out at the construction site will be carried out in the same time period (worst case scenario), the dust emission to be generated has been calculated as 0.4634 kg/hour for the uncontrolled case and 0.2367 kg/hour for the controlled case. Therefore, as stated in "Regulation on Control of Industrial Air Pollution"; since the specified pollutant mass flow rates are not exceeded for the topsoil stripping operation, it has not been deemed necessary to calculate the "Contribution Value to Air Pollution" using an internationally accepted distribution model in the facility impact area.

The construction equipment and transportation vehicles in question will be used at different times during the day.

#### *Calculation of dust emission Excavation Soil*

Within the scope of the subproject, excavation works will be carried out for 50 meters long ETL. The volume of the area to be excavated;

$$50 \text{ m} \times 0.8 \text{ m} \times 1 \text{ m} = 40 \text{ m}^3$$

(Soil Volume Weight is taken as 1.6 tons/m<sup>3</sup>)<sup>6</sup>

$$40 \text{ m}^3 * 1.6 \text{ tons/m}^3 = 64 \text{ tons}$$

Daily working time is planned as 8 hours. Excavation work is planned as 384 hours in total.

$$64 \text{ tons}/384 \text{ h} = 0.167 \text{ tons/h}$$

#### *Mass Flow Rate of Dust Emission to Occur During Extraction, Loading and Unloading of Excavation Soil*

Uncontrolled; E1 = 0.167 tons/hour x (0.025+0.01+0.01) kg/ton = 0.008 kg/hour

Controlled; E1 = 0.167 tons/hour x (0.0125+0.005+0.005) kg/ton= 0.004 kg/hour

#### *Mass Flow Rate of Dust Emission to Occur During the Transportation of Excavation Soil*

Topsoil taken from the field during construction work will be temporarily stored in the excavation soil storage area that will also be located within the work area; this distance is an average of 0.3 km round trip. Assuming that each truck used during transportation can carry 25 tons of material and therefore will make 1 trip in approximately 1 working day (25 tons/20.98 tons/hour), the mass flow rate of dust emissions that will occur during transportation is;

Uncontrolled; E2 = (0.7 kg/km.vehicle) x (0.3 km/1 trip/vehicle) x (1 trip/1 hour) = 0.21 kg/hour

Controlled; E2 = (0.35 kg/km.vehicle) x (0.3 km/1 trip/vehicle) x (1 trip/1 hour) = 0.11 kg/hour

#### *Dust Emission Mass Flow Rate to be Formed During the Storage of Excavation Soil*

Uncontrolled; E3 = (5.8 kg/ha-day)x(1 ha/1 weeks/ 6 days/week/8 hours/day)= 0.12 kg/hour

Controlled; E3 = (2.9/ha-day)x(1 ha/1 week/6 days/week/8 hours/day)= 0.06 kg/hour

Accordingly, the total mass flow rate of dust emission to be formed from the stripping operations of the excavation soil to be carried out;

Uncontrolled; ETOTAL-1 = 0.008 kg/h + 0.21 kg/h + 0.12 kg/h ≈ 0.338 kg/h

Controlled; ETOTAL-1 = 0.004 kg/h + 0.11 kg/h + 0.06 kg/h ≈ 0.174 kg/h

When calculating the dust emission to be generated during the excavation soil operations, it was taken into account that the works would be carried out under the most adverse conditions. As stated in the "Regulation on Control of Industrial Air Pollution; for newly established facilities, "Calculation of the Contribution Value to Air Pollution" is required if the pollutant mass flow rates are exceeded.

Considering that all the works to be carried out within the scope of the excavation soil operations during ETL construction to be carried out at the construction site will be carried out in the same time period (worst case scenario), the dust emission to be generated has been calculated as 0.338 kg/hour for the uncontrolled case and 0.174 kg/hour for the controlled case. Therefore, as stated in "Regulation on Control of Industrial Air Pollution"; since the specified pollutant mass flow rates are not exceeded for the topsoil stripping operation, it has not been deemed necessary to calculate the "Contribution Value to Air Pollution" using an internationally accepted distribution model in the facility impact area.

---

<sup>6</sup>[https://gsim2hwnpbvwtwmb1dg11z6.blob.core.windows.net/media/documents/8866271100\\_202404051549238\\_Product%20Information%20Sheet%20%28EU\\_2021\\_EP%29tr\\_TR.pdf](https://gsim2hwnpbvwtwmb1dg11z6.blob.core.windows.net/media/documents/8866271100_202404051549238_Product%20Information%20Sheet%20%28EU_2021_EP%29tr_TR.pdf)

The construction equipment and transportation vehicles in question will be used at different times during the day.

It will be used in soil filling materials and leveling works that occur during excavation works.

#### *Emission calculation from vehicles*

The provisions of the Exhaust Gas Emission Control and Gasoline and Diesel Quality Regulation, which was published in the Official Gazette dated 30.11.2013 and numbered 28837 and entered into force, and the Exhaust Gas Emission Control Regulation, which was published in the Official Gazette dated 11.03.2017 and numbered 30004, shall be complied with.

During construction, the fuel to be spent is only necessary for the work machines to be used, there will be no fuel consumption for heating etc. The usage periods and fuel consumptions of the work machines to be used during the construction phase of the business are shared in Table 2.

*Table 2. Usage periods of the work machines to be used in the facility*

Machine type	Number	Power (hp/h)	Working Time (h/day)
Crane	1	200	8
Excavator	1	200	8
Truck	1	200	8
Pile Driver	1	90	8
Water Tank	1	120	8

The fuels to be used in the land preparation and construction phase of the subproject will be diesel fuel to be used during the work of the construction equipment. Apart from this, there is no other type of fuel to be used in the subproject. Diesel fuel will be preferred as fuel for the construction equipment to be used within the scope of the subproject. There will be no fuel storage in the subproject area and the fuel supply to the construction equipment will be made with fuels supplied from authorized stations. The characteristics of diesel fuel are given below:

*Table 3. Diesel Properties*

Properties	Diesel	Properties	Diesel
Consistency	Very fluid	Carbon Wastes (%)	Trace
Type	Distilled	Sulfur (%)	0.4-0.7
Color	Amber	Oxygen-Nitrogen (%)	0.2
Density (150c-gr/cm <sup>3</sup> )	0.8654	Hydrogen (%)	12.7
Viscosity (380 °C)	2.68	Carbon (%)	86.4
Pour Point (0°C)	-18	Water and Sediment (%)	Trace
Atomization Temperature (0°C)	Atmospheric	Ash (%)	Trace
Pumping Temperature (0°C)	Atmospheric	Heat Value	9.387

Source: Air Pollution Control and Supervision, Chamber of Chemical Engineering, May, 1999

The emission factors table determined by the EPA (Environment Protection Agency) was used for the construction equipment to be used within the scope of the subproject.

*Table 4. Emission Factors Used in Calculations*

Power	Year	CO (g/kWh)	HC (g/kWh)	NOx (g/kWh)	PM (g/kWh)
56 ≤ kW < 130 (75 ≤ kW < 175)	2012 and above	5,0	0,19	0,40	0,02
130 ≤ kW < 560 (175 ≤ kW < 560)	2011 and above	3,5	0,19	0,40	0,02

Source: USEPA Standards

Using the data in the table above, exhaust gas emissions that will occur during the construction and operation phases are calculated with the formula below and entered into the tables.

Emission Value (kg/h) = Emission Factor x Engine Power (kW) x Number x kg/1000 gr

Table 5. Emission calculations

Equipment to be used	Piece	Hp	kW	Emission Factor (g/kWh)		Emission Value (kg/sa)
Excavator	1	200	149	CO	3,5	0,52
				HC	0,19	0,03
				NOx	0,4	0,06
				PM	0,02	0,003
Crane	1	200	149	CO	3,5	0,52
				HC	0,19	0,03
				NOx	0,4	0,06
				PM	0,02	0,003
Pile Driver	1	90	67.05	CO	5	0,34
				HC	0,19	0,013
				NOx	0,4	0,026
				PM	0,02	0,0013
Truck	1	200	149	CO	3,5	0,52
				HC	0,19	0,03
				NOx	0,4	0,06
				PM	0,02	0,003
Water Tanker	1	120	89.5	CO	5	0,4475
				HC	0,19	0,017
				NOx	0,4	0,036
				PM	0,02	0,002

1 Hp = 0.745 kW.<sup>7</sup>

When emissions from all vehicles are added together;

Table 6. Amount of Emission

Pollutant	Amount (kg/h)	Working Time (h)	Total Amount (kg/8 h)	24 hour emissions
CO	2.3475	8	18.78 kg	18.78 kg/24 h = 0.7875 kg/h
HC	0.12	8	0.96 kg	0.96 kg/24 h = 0.04 kg/h
NOx	0.242	8	1.936 kg	1.936 kg/24 h = 0.08 kg/h
PM	0.0123	8	0.0984 kg	0.0984kg/24 h = 0,004 kg/h

The calculation was made assuming that all vehicles were operating at maximum operating time and in the same month.

Pollutant	Amount (kg/h)	Mass flow rate (kg/hour) given in Annex-2 Table 2.1 of the "Regulation on Control of Air Pollution from Industrial Sources"	Evaluation
CO	0.7875	50	Below the limit value

<sup>7</sup><https://sbsolar.com.tr/1kw-kac-hp-bir-beygir-kac-kw?srsltid=AfmBOopeJLuU2e08CtSYKdRWghT6TSx7iJDNzzfTjy0U2vio8kOh7QKR>

HC	0.04	2	Below the limit value
NOx	0.08	4	Below the limit value
PM	0.004	1	Below the limit value

The calculated exhaust gas emission amounts were calculated cumulatively assuming that all machinery and equipment operate at the same time and are entered in the table above. When the calculated hourly mass flow rate (kg/hour) value was compared with the mass flow rate (kg/hour) values given in Annex-2 Table 2.1 of the "Regulation on Control of Industrial Air Pollution", it was seen that the emission mass flow rates were below the limit values given in the regulation. The calculations were made based on the assumption that all work machines operate simultaneously and continuously in their areas of use, and in reality, such an application is not very possible. Therefore, the emission levels that will occur in reality will be lower than the emission levels found in the calculations.

Where the requirements in Türkiye differ from the levels and measures presented in the EHS Guidelines, the more stringent (such as the most stringent discharge and emission standards) will be applied in the project specification.

### **Noise**

The subproject activities are planned to be completed in ~2 month. Within the scope of the subproject, work will be carried out during the daytime, 6 days a week, 8 hours a day.

The sound power levels of the equipment were calculated according to the formulas given below according to the permitted sound power levels defined in the table given in Article 5 of the "Regulation on Noise Emission in the Environment Created by Equipment Used in Open Areas", which was published in the Official Gazette dated 30.12.2006 and numbered 26392 and entered into force, and data from similar activities were also taken into account.

*Table 7. Equivalent Noise level to the distances According to Distribution*

Distance (m)	40	50	100	200	300	400	500	750	1000
Equivalent noise level (dBA)	64.4	62.3	56.0	49.3	45.3	42.4	40.1	35.8	32.8

Since the closest mosque, vineyard, garden house to the subproject area is 100 meters away, it has been determined that it will remain below the limit values specified in the Environmental Noise Control Regulation published in the official gazette dated 30.11.2022 and numbered 32029.

*Table 8. Equivalent Noise level to the distances According to Distribution*

Noise Source	Measured Database	Daytime (dBA)	Evening (dBA)	Night (dBA)
Industrial facilities, transportation resources	LAeq,5min	65	60	55
Businesses	LAeq,5min	Background +5	Background +3	Background +3
If there is more than one business	LAeq,5min	Background +7	Background +7	Background +5
All resources	LCmax	100 dB(C)	100 dB(C)	100 dB(C)

*Table 9. IFC General EHS Guides Noise Levels*

Buyer	Daytime (07:00 - 22:00)	Night (22:00 - 07:00)

<b>Settlement Areas</b>	<b>55 dBA</b>	<b>45 dBA</b>
Commercial/industrial areas	70 dBA	70 dBA

Although the limit value meets the limits of the relevant national regulation, it is above the limits specified in WBG General EHS guidelines. The calculations were made assuming that all equipment will operate simultaneously. In real life, lower environmental noise levels are expected. In addition, in case of any complaints about noise, measurements will be taken to determine the environmental noise level caused by construction work and if it is high, additional measures such as barriers, arrangement of working hours, etc. will be taken.

## Appendix-12. Trees Commitment Document

### TUTANAK

İlçemiz Işık Mahallesi 2 parselde kurulacak olan 0,99 MW Güneş Enerji Santrali (GES) Tesisi PUMREP kapsamına alınmıştır. Proje alanı içinde ekonomik değeri olmayan, meyve vermeyen tipte ağaç ve çalıların GES sahasının kurulumu esnasında enerji sahası için kesilmesi gerekmeli durumunda Ödemiş sınırları içerisinde en az sökülecek kadar ya da daha fazla sayıda ağaçlandırma yapılacağını taahhüt ederim.

  
Aslı İCELLİ YAĞCI  
ZİRAAT MÜHENDİSİ

  
Niyazi KESİCİOĞLU  
Tarımsal Hizmetler Müdürü V.

## Appendix-12. Zoning Plan

### DUYURU

Belediye Meclisimizin 07.10.2024 tarih ve 114 sayılı kararıyla kabul edilen ve İzmir Büyükşehir Belediye Meclisinin 13.01.2025 tarih ve 04.16 sayılı kararı ile onaylanan; mülkiyeti Belediyemize ait İşık Mahallesi, 2 parsel numaralı tajinemazın bir kısmını kapsayan alan üzerinde Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Alanı (Göneş Enerjisi Santrali) yapılması amacıyla hazırlanan UIP – 351070301 plan işlem numaralı 1/1000 ölçekli Uygulama İmar Planına ait evraklar halkımızın tetkiki için 10.04.2025 ve 12.05.2025 tarihleri arasında Belediyemiz girişindeki ilan panosunda公示 ve internet sayfasında ilan edilmektedir. Aşki süresi içerisinde yapılan itiraz başvurularının zamanı red süresi askıdan iniz tarihinden itibaren 30 gün olup, zimni red süresinin son günü izleyen günden sonra 60 gün olan genel dava açma süresi başlayacaktır.

