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SUSTAINABLE CITIES PROJECT – II

WITHIN THE SCOPE OF ADDITIONAL FINANCING

CONSULTANCY SERVICE FOR TECHNICAL FEASIBILITY PREPARATION

GERCÜŞ MUNICIPALITY

SOLAR POWER PLANT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

FEBRUARY 2025

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ABBREVIATIONS

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

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

Executive Summary

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

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

Solar Energy Power Plant Project (891 kWp, 740 kWe) is planned by Gercüş Municipality within the borders of Batman Province, Gercüş District, Bağlarbaşı Neighbourhood, 24 lot of 138 block. The coordinate list and location map of the planned project area are given in the attachment (See Annex-1). The location map of the project is shared in ANNEX 2. The project area belongs to Gercüş Municipality. The land registry record is given in the attachment (See ANNEX 3).

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

With the project put into operation, approximately 69,51% of the total electricity consumption of Gercüş Municipality will be met. While determining this rate, the last year consumption data of Gercüş Municipality (2.250 MWH) and the production of the SPP Project (1.564 MWH) were taken as basis.

Considering the location of the sub-project and the nature of its potential environmental and social impacts, the Project is categorized as Category B according to the definitions in OP/BP 4.01 regarding Environmental Assessment and is out of scope in the environmental impact assessment (EIA) procedure in accordance with the national EIA Regulation (X).

Gercüş Municipality 891 kWp/ 740 kWe SPP project is one of the sub-projects included in the scope of Sustainable Cities Project-II Additional Financing (SCP-II AF) to support sustainable development in cities in Türkiye.

This ESMP has been prepared in accordance with the World Bank Safeguard Policies, including the Operational Policies (OPs), World Bank General Environment, Health and

Safety Guidelines, Bank Policy 17.50 Bank Disclosure Policy, Environmental and Social Management System Sustainable Cities Project-II Additional Financing (SCP-II EF), World Bank Good Practice Note.

Since the area where the solar power plant will be built is 3 km away from the nearest residential area, Bağlarbaşı Neighbourhood, it is not expected to affect the local people too much. During the installation of the solar power plant, short-term excavation work, transformer installation and approximately 876.76 m long energy transmission line operations will take approximately 1-5 days. Apart from that, there is no situation that will negatively affect the local people due to the transportation of materials.

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

1 Subproject Description

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

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

The ownership of the Batman Province, Gercüş District, Bağlarbaşı Neighborhood lot 24 of block 138 parcel where the project solar power plant area will be located belongs to the State Treasury and has been allocated to Gercüş Municipality (ANNEX 3). The ETL route to be constructed within the scope of the project will pass lot 27 of block 138 and cadastral roads and a bypass will be made to the existing line. Lot 27 of block 138 belongs to the State Treasury and is not used for any purpose. No activities such as agriculture, animal husbandry or grazing are carried out on the land. There is no presence of formal or informal users.The lot allocation procedures on the mentioned ETL route were initiated on 13.02.2024 and the allocation process is ongoing. The request letter for allocation is shared in ANNEX 3.

With the project put into operation, approximately 69,51 % of the total electricity consumption of Gercüş Municipality will be met. While determining this rate, the last year consumption data of Gercüş Municipality (2.250 MWH) and the production of the SPP Project (1.564 MWH) were taken as basis.

Within the scope of the planned project, the connection agreement given by DICLE EDAŞ is given in the attachment (See ANNEX 9). In this direction, a transmission line and grid connection will be made at a distance of approximately 410 meters (See Figure 1). Lot 27of block 138 through which the ETL route passes, belong to the Treasury of Finance. ETL passes through the cadastral road. However, it is planned to connect the line from the facility to the cadastral road with a 78-meter-long line from lot 27 of block 138. The family allocation process for the land in question continues. The letter sent to Batman Provincial Directorate of Agriculture and Forestry regarding the allocation was shared in Annex 3.

It is anticipated that 10 personnel will work during the construction phase of the project and the solar energy installation process will be completed within 8-10 weeks.

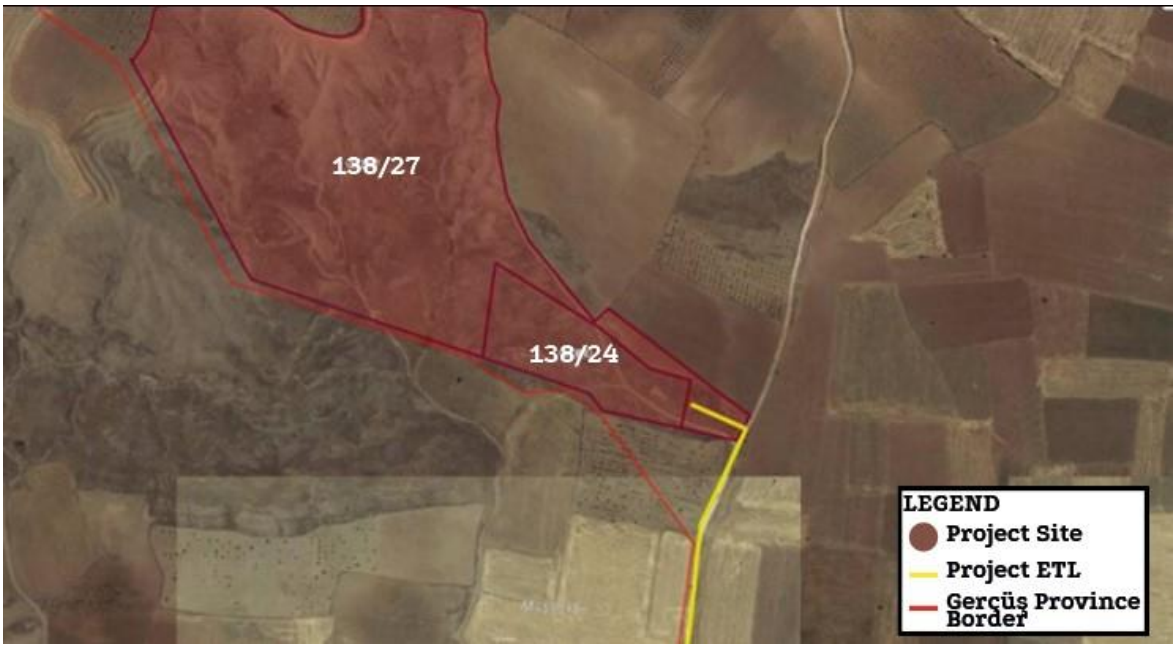


Figure 1. The Project Area Satellite Image and Energy Transmission Line

Bağlarbaşı Neighbourhood, is located to the east of the project area and approximately 3 km away.

The satellite image of the access route is given in Figure 2and the project is given in the attachment (See ANNEX 6).

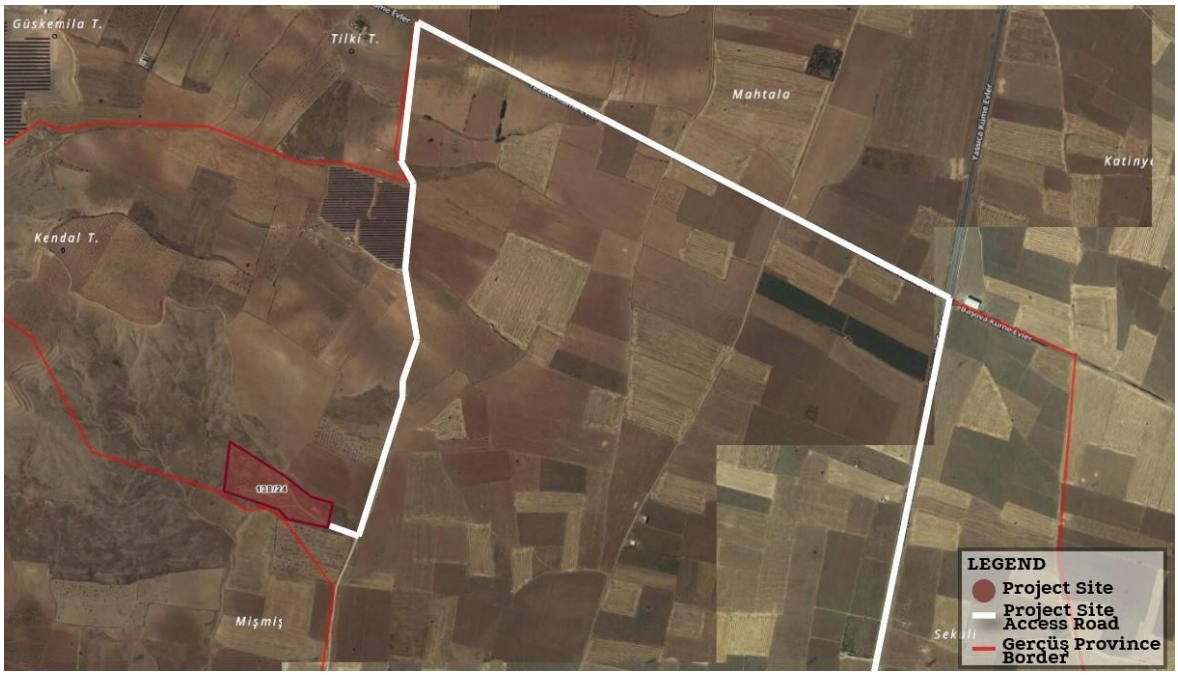


Figure 2. Project Area Access Route

1. Environmental and Social Screening

Under the World Bank's Operating Policy on Environmental Assessment (OP 4.01), projects are classified under categories A, B or C, depending on the degree of their potential impact on the environment. The sub-project is categorized as Category B where the potential impacts are site-specific and reversible in nature and can be managed by readily designed migratory measures.

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

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

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

By Gercüş Municipality, within the borders of Batman province, Gercüş District, Bağlarbaşı Neighbourhood, 138 Block 24 Parcel “Solar Energy” Power Plant Project (891

kwp, 740 kwe)" is planned. The planned project is considered outside the scope of the EIA Regulation, which came into force after being published in the Official Gazette dated 29.07.2022 and numbered 31907.

2 Legal and Institutional Framework

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

2.1 National Legal Framework

There is sufficient legal and administrative basis in Türkiye for environmental and social management during the implementation of development projects. Many regulations and decrees have been put into effect within the scope of Environmental Law No. 2872. Article 10 of the "Environmental Law" states that an EIA report must be prepared for investment projects that may cause negative environmental impacts due to their planned actions.

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

Solar Power Plant application is considered out of scope since it is not included in Annex-1 and Annex-2 lists according to the national EIA legislation.

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

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

(OG 26.12.2022 Date and Number 32055)

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

(OG 11.11.1989 Date and 20339 Number)

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

2.2 International Standards

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

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

- Natural Habitats (OP 4.04)
- Physical Cultural Resources (OP 4.11)
- Indigenous Peoples (OP 4.10)

- Land Acquisition and Involuntary Resettlement (OP 4.12)
- Physical Cultural and Other World Bank Protection Measures

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

- IFC General EHS Guidelines dated 30 April 2007

3 Baseline Data

According to the data of the Turkish Statistical Institute (TURKSTAT), the population of Gercüş District in 2023 is 15,546 people. This population consists of 9,944 men and 5,602 women. Accordingly, 64% of the population of Gercüş District is male and 36% is female. The population of Bağlarbaşı Neighbourhood consists of 2,835 people. In this context, the population of Bağlarbaşı Neighbourhood corresponds to approximately 18.23% of the population of Gercüş District.

4 Environmental and Social Management Baseline

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

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

4.1 Water Use and Wastewater Generation

The water needs of 10 personnel who will work within the scope of the project will be met, and in parallel, wastewater will be generated due to the personnel. During the operation phase of the project, deionized water will be used to clean the panels, and the water falling on the ground will evaporate and will not cause wastewater formation. The cleaning of the

panels will be done twice a year and will be in accordance with the current Occupational Health and Safety legislation.

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

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

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

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

Project Period	Water use	The amount of water	Water Supply Place	Amount of Wastewater	Wastewater Disposal Method
Construction	Drinking and potable water for 15 people who will take part in the land preparation phase	10 people x 246 lt /person-day* = 2,46 m ^{3} /day	Drinking and utility water that will be needed during the land preparation and construction phase will be supplied by demijohns.	10 people x 151 lt /person-day* = 1,5 m³/day**	A septic tank will be installed and removed by sewage trucks.
Operation	Cleaning of Photovoltaic Panels (Twice a year)	4 m³/year deionized water (0,01 m³/day)	Panel cleaning will be done twice a year with chemical-free water, except on rainy days. Domestic water will be provided by purchasing.	-	Since the water will remain on the gravel floor during the panel cleaning process, it will evaporate and wastewater will not be formed. Any remaining water on the panel will be

Project Period	Water use	The amount of water	Water Supply Place	Amount of Wastewater	Wastewater Disposal Method
					wiped off with a dry cloth.
	Drinking and potable water for 2 people who will take part in the operation phase	2 people x 246 lt /person-day* = 0,49 m ^{3} /day		2 people x 143 lt /person-day* = 0,30 m³/day**	A septic tank will be installed and removed by sewage trucks.

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

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

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

Table 2. Wastewater and Ambient Water Quality Criteria

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

4.2 Waste Management

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

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

During the operations to be carried out within the scope of the planned project, domestic solid waste will be generated due to the personnel working. According to the data received from TurkStat, the daily amount of solid waste generated per person in Batman in 2022 is 1,03 kg/day [(1)], accordingly, the amount of domestic solid waste that will arise from people who will work during the construction phase of the project is 10,3 kg/day (10 people x 1,03 kg/person-day) solid waste will be generated.

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

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

[(1)] Municipal Waste Statistics, Average Municipal Waste Amount per Person (kg/person-day), Turkish Statistical Institute, 2022.

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

Table 3. Waste Management Criteria

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

4.3 Waste Panels

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

4.4 Waste Batteries

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

4.5 Medical Waste

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

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

Table 4. Hazardous Material Management Criteria

Criteria
• Determining hazardous material management priorities based on hazard analysis of risky operations determined through Social and Environmental Assessment, • Avoiding or minimizing the use of hazardous substances whenever possible, • Preventing the uncontrolled release of hazardous substances into the environment or uncontrolled reactions that may lead to fire or explosion, • Using engineering controls (limitation, automatic alarms and shutdown systems) appropriate to the nature of the hazard, • Implementation of management controls (procedures, audits, communications, training and exercises) to address remaining risks that cannot be prevented or controlled by engineering measures, • Recording the types and quantities of hazardous substances found in the project,

Criteria
• Analyzing potential spill and release scenarios using available industry statistics on spills and accidents whenever possible, • Analyzing the potential for uncontrolled reactions such as fire and explosion, • Identification of the locations of hazardous materials and related activities on the emergency plan field map, • A description of response activities in the event of a spill, release, or other chemical emergency. • Performing occupational safety analysis to identify specific potential occupational hazards and industrial hygiene studies, as appropriate, to monitor and verify exposure levels to chemicals and compare with applicable occupational exposure standards. • Conducting training, awareness-raising activities and exercises, • Identification and implementation of permitted maintenance activities such as hot work or confined space entries, • Providing appropriate personal protection equipment (PPE) (shoes, masks, protective clothing and goggles in appropriate areas), emergency eyewash and shower stations, ventilation systems and sanitary facilities, • Preparation of monitoring and recordkeeping documents that include audit procedures designed to verify and record the effectiveness of preventing and controlling exposure to occupational hazards and to maintain accident and incident investigation reports on file for a period of at least five years. • Using transfer equipment that is suitable and compatible with the characteristics of the transferred materials and designing them to ensure safe transfer.

4.6 Excavation Waste

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

In order to place the machinery and equipment to be installed within the scope of the project, excavation will be carried out at a depth of 0.05 m in an area of approximately 10,360 m^2.

According to this;

10,360 m^2 * 0.05 m = 518 m^3 excavation will occur.

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

and Point Source Contaminated Sites", which came into force after being published in the Official Gazette dated 08.06.2010 and numbered 27605, will also be taken into consideration.

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

4.7 Dust Emission

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

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

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

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

Table 5. PM_{10} Pollutant Limit Values

Regulation	Average Time	Limits	Annual Decrease of Limit Value	Warning Threshold
Air Quality Assessment and Management Regulation	**KVS** (24 hour) 95%/year To protect human health	**300 µg/m³**	**100 µg/m³** starting from 1.1.2009 until 1.1.2014 It decreases annually by an equal amount every 12	First level: 260 µg/m³ Second level: 400 µg/m³ Third level: 520 µg/m³ Fourth level: 650 µg/m³

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

Within the scope of the activity, the issues specified in the "Regulation on Control of Industrial Air Pollution", "Air Quality Assessment and Management Regulation" and the Air Emissions and Ambient Air Quality Guide published by the International Finance Corporation will be complied with.

4.8 Exhaust Gas Emission

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

4.9 Noise

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

It is expected that after the installation of the power plant, the noise level that the equipment will emit to the environment during operation, especially the inverter panel and substation equipment, will be below 25 dB and therefore it will not pose any problem as the noise will completely disappear at a distance of 60-80 m. Considering that the nearest residential area is 3 km away and the noise during the construction phase will end within 8-10 weeks, ant noise impact is not expected during operation phase of the project. In addition, the determined values are below the limit values given in national and international legislation. A grievance mechanism will be implemented regarding these issues. Construction phase noise calculation is given in the attachment (See ANNEX 8).

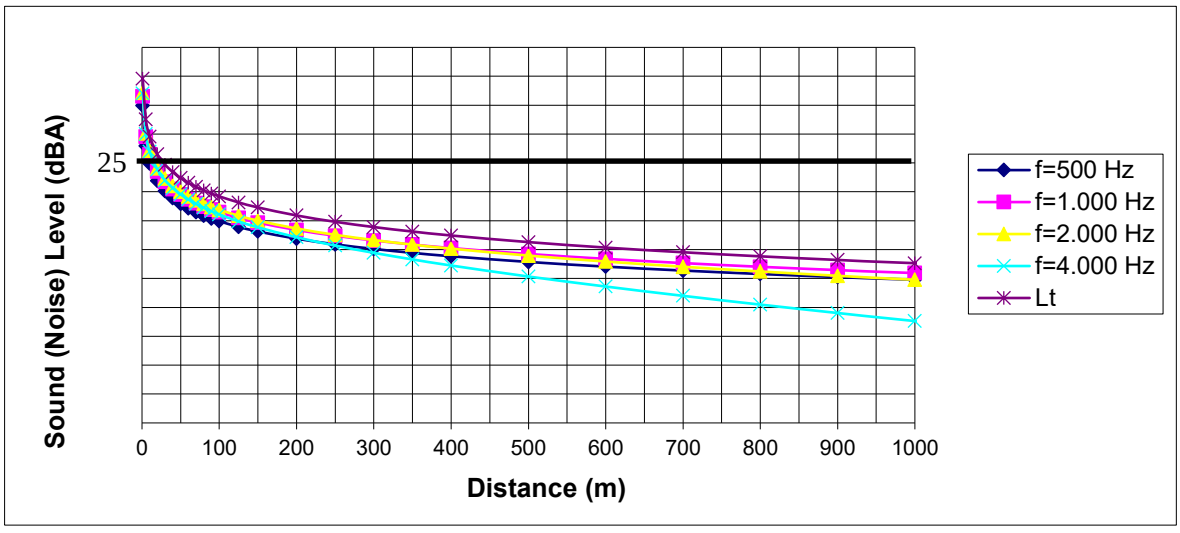


Figure 3. Construction Phase Noise Distribution Graph by Distance

Table 6. Environmental Noise Level Limit Values

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

Table 7. IFC Noise Management – Limit Values

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

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

In the calculation, it is assumed that all vehicles and equipment operate simultaneously, there are no obstacles between noise sources and receptors, and noise sources operate uninterruptedly. Therefore, the actual environmental noise levels will be lower than the calculated environmental noise levels.

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

Annex-2 (Measurement *and Monitoring of Environmental Noise Level) of the* "Environmental Noise Control Regulation" in the Official Gazette dated 30.10.2022 and numbered 32029; Table 1. Environmental Noise Level Limit Values will be followed.

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

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

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

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

4.10 Glare and Reflection Effect

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

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

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

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

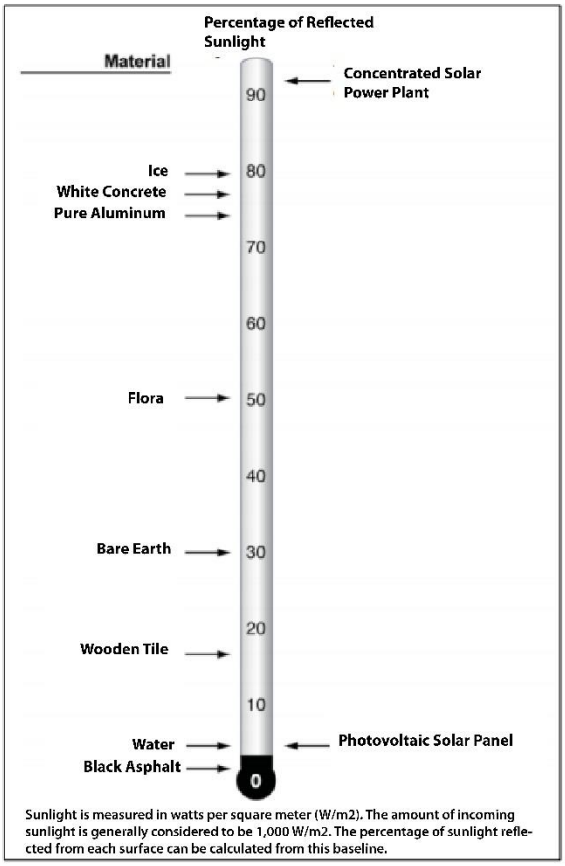


Figure 4. Sunlight Reflectance Percentages of Various Materials

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

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

4.11 Evaluation According to Bird Migration Routes

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

While one of these routes passes over the Bosphorus, the other one enters Türkiye from the Caucasus, passes through Northeastern Anatolia, and leaves Türkiye from the south, like the first route. In spring and autumn, these movements are exhibited in opposite directions. Türkiye is located on the most important bird migration routes between Europe and Africa, and due to its location, the areas on the migration routes are of great importance. The project area is not located on the bird migration routes of Turkiye.

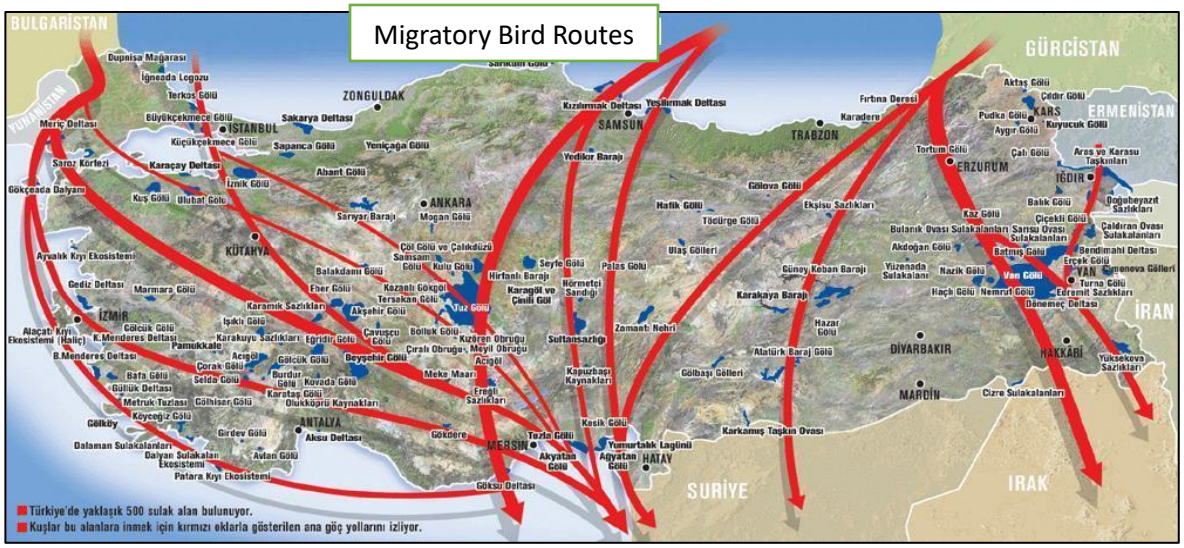


Figure 5. Migratory Bird Migration Routes Map

4.12 Biodiversity

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

4.13 Population/Demographics

The closest settlement to the project area is Bağlarbaşı neighborhood, which is 3 km away and has a population of 3,557. 45% of the population is female and 55% is male.

The education level of the settlement; 63% of the population is Primary, Secondary and High School, 22% is Undergraduate and Postgraduate, and 15% is Other.

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

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

4.14 Economy/Employment

The main source of income of Bağlarbaşı neighborhood, which is the closest settlement to the project area, is agriculture and animal husbandry.

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

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

4.15 Natural Habitats

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

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

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

4.16 Historical and Cultural Areas

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

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

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

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

The closest cultural heritage site to the project area is the Nevala Asa mills located in Çukuryurt neighborhood. Their distance to the project site is approximately 8.5 km(see Figure 6).

Figure 6. The closest cultural heritage

4.17 Agriculture and Forestry Areas

The project area consists of an area of approximately 10 hectares with the qualification of “field” within the boundaries lot 24 of block 138, in the Gercüş district of Batman province.

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

4.18 Land Acquisition / Use

Solar Energy Power Plant Project (891 kWp, 740 kWe) is planned by Gercüş Municipality within the borders of Batman Province, Gercüş District, Bağlarbaşı Neighborhood, 24 lot of 138 block. The project area ownership belongs to the Treasury and has been allocated to Gerçüş Municipality. Allocation procedures were completed on 28.04.2021. Title deed record and Allocation Letter are attached (See ANNEX 3).

The connection agreement given by DİCLE EDAŞ within the scope of the planned project is attached (See ANNEX 9). In this direction, a network connection will be made via a ETL to a distance of approximately 410 meters. There is no private land along the energy transmission line route. ETL is planned as an overhead line.
The ETL line will pass through the cadastral road. It will be connected to the existing poles. However, the underground line between the SPP field and the long-stage road, lot 27 of block 138, will be passed and connected to the pole on the cadastral road. The allocation procedures regarding the part of the lot 27 of block 138 land where the ETL will pass have been initiated and are ongoing. The documents in question have been shared in ANNEX 3.

Existing access road will be used for project activities and no additional land will be used for access accessibility. The existing access road passes in front of the Gercüş district. Therefore, no traffic load is expected. If additional access roads will be required in the future, an environmental and social impact assessment will be conducted for the proposed route.

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

4.19 Working conditions

It is planned to employ 10 personnel during the construction and machinery-equipment installation activities of the solar power plant and 2 personnel during the operation phase.

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

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

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

4.20 Community Health and Safety

Community health and safety problems are related to dust and environmental noise factors that may arise from the construction and operation period of the project. During the construction phase, during the transportation of the panels within the scope of the project, there will be temporary effects that will directly reflect on the public, such as increasing the traffic load, creating dust emissions, and noise emissions from working machinery and equipment. During the operation phase, improperly managed waste disposal and recycling plan of expired panels will pose a risk. The closest settlement to the project site, Bağlarbaşı neighborhood, is 3 km away. Therefore, it is anticipated that local people may be not affected by the dust and noise that will occur, during the three-week land preparation and construction period.

The D955 highway, which is close to Gercüş district center, and the secondary road branching off from there will be used to reach the project site. There is no settlement that will be negatively affected on the transportation route.

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

Accidents that may threaten public health and safety may occur as a result of not fully surrounding the construction sites and not placing the necessary warning signs. When an accident occurs, Gercüş Municipality is obliged to report the accident to İlbank within 24 hours. In this regard, appropriate warning signs and signals will be used to identify construction sites and irrigation will be provided during dry seasons.

D955 highway and side road will be used within the scope of transportation of the panels. Possible damage to road surfaces due to traffic caused by heavy machinery will be repaired by the Subcontractor. In case of any damage to infrastructure elements on private lands due to construction activities, mitigation measures will be implemented by the subcontractor.

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

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

4.21 Occupational Health and Safety

It is planned to employ a total of 10 personnel during the construction process of the project, depending on the workload. No campsite will be established for workers during the construction period. It is planned that the personnel needed for the project will be met from local people as much as possible. In case of need for accommodation, it is planned to provide accommodation in the nearest settlement.

The construction phase of the project includes excavation, filling and heavy vehicle use. Vehicle movements can cause accidents resulting in injury and death. Occupational Health and Safety (OHS) risks may arise due to the risk of pollution, dust emissions and noise generation during site preparation and construction works. In particular, construction works may cause accidents that will threaten the health and safety of employees if necessary precautions are not taken. In this context, Gercüş Municipalityand Subcontractor are obliged to provide a safe and healthy working environment for employees. During the construction period, workers are exposed to noise, dust, heat, chemicals(In the event of a possible accident, the heavy metals (lead and cadmium) contained in the panels pose a risk to the ecosystem and human health.), etc. may be exposed to various dangers. If potential risks at various stages of the Project are not managed appropriately, occupational accidents and injuries may occur. Dust and Environmental Noise that may occur during the operation phases of the projects may cause potential health problems due to non-routine risks. When an accident occurs, Gercüş Municipality is obliged to report the accident to Ilbank within 24 hours.

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

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

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

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

The sub-project will be implemented in compliance with the requirements of the applicable national legislation, international agreements and conventions to which Türkiye is a party of, and in accordance with the WB operational policies and WB Group General Environmental, Health and Safety Guidelines (EHSGs) (2007)

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

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

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

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

Preparation of Risk Assessment Guide

Within the scope of the "Occupational Health and Safety Risk Assessment Regulation" dated 29 December 2012 and numbered 28512, a Risk Assessment Guide will be created to

meet the requirements of the legal legislation for specific risks within the scope of the project.

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

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

Control List

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

Risk Assessment Table

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

Occupational Health and Safety expert in which the impact of existing risks that may occur in both construction and operation will be determined.

Application of Risk Assessment Table

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

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

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

4.22 Institutional Arrangements

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

4.23 Current Administrative (Institutional Structure)

The organizational chart of Gercüş Municipality is given Figure 7.

Figure 7. The organizational chart of Gercüş Municipality

4.24 Duties and Responsibilities

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

The studies to be carried out within the scope of this ESMP and the parties responsible for these studies are given Table 8.

Table 8. Duties and Responsibilities

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

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

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

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

4.25 Training

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

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

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

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

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

the Environment, Health and Safety Guides (Occupational Health and Safety) published by the International Finance Corporation (IFC).

4.26 Environmental and Social Management Plan

As the sub-project owner, it is the responsibility of Gercüş Municipality to manage the environmental and social issues of the project and to ensure that the necessary mechanisms are developed and implemented by the Contractor and/or Sub-Contractor.

Within the scope of SCP-II AF, it is anticipated that some environmental and social impacts may occur during the pre-construction phase, land preparation and construction phase and operation phases of the planned SPP project.

The management of the impacts that may occur on the environmental and social components during the pre-construction, land preparation, construction and operation phases and the relevant mitigation measures defined for these impacts are given in Table 9 and Table 10.

Parameters such as wastewater, solid and hazardous waste, noise and vibration, dust emissions and excavation works that will be generated during the construction phase of the SPP have a direct impact on the environment and human health. However, considering the amount of formation and the duration of formation, the impact is expected to be low. It is expected to have a low indirect impact on traffic, cultural heritage and biodiversity.

Noise, vibration, and dust formation are not expected during the operation phase.

Table 9. Land Preparation and Construction Phase Mitigation Plan

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
WASTE WATER	**Land Preparation and Construction Phase;** Domestic wastewater will be generated due to the personnel to work.	When they are not treated or disposed of appropriately, they cause underground and surface water pollution and soil pollution, and can negatively affect human and environmental health**.**	Direct	Low	Within the scope of the planned project, the water need of 10 personnel who will work in the construction and land preparation phase is **2,46 m³/day**, and the amount of wastewater it will create is **1,5 m³/ day**. A septic tank will be installed for the sink needs of the people who will work in the planned project and will be drawn by a sewage truck at certain periods.	All responsibilities during the land preparation, construction and operation stages belong to Gercüş Municipality and the Contractor

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
SOLID WASTE- HAZARDOUS WASTE- MEDICAL WASTE- PACKAGING WASTE	**Land Preparation and Construction Phase** Municipal waste caused by personnel working in the project area Packaging waste from personnel In addition, there are hazardous waste, waste batteries and accumulators. It is possible for panels to become damaged/idle.	When not disposed of, it causes contamination of underground and surface water resources, soil pollution and odor problems for human health.	Direct	Low	Municipal waste will be generated due to a total of 10 personnel who will work during the land preparation and construction phases of the project. Among the wastes that can be generated, recyclable (paper, plastic, glass, etc.) and non-recyclable wastes (food scraps, etc. organic waste) will be collected separately in garbage containers placed at various points of the project site. Wastes that can be recycled will be sent to licensed recycling companies; Domestic solid waste that cannot be recycled will be disposed of by giving it to the relevant Municipality. For the packaging waste generated in the facility, in accordance with the colors specified within the scope	

					of the "Zero Waste Regulation" published in the Official Gazette No. 30829 dated 12.07.2019 (blue color for paper waste, yellow color for plastic waste, gray color for metal waste, green color for glass waste). and black for non-recyclable waste) waste bins will be provided, a Zero Waste Management System will be established and data of the waste collected for the previous month will be entered into the Integrated Environmental Information System (e- çbs) within the framework of the relevant regulation by the 15th of each month. Since the solid waste that will be generated within the scope of the project will not be stored in the project area for a long time, it will not cause any problems such as odor, appearance or leakage. All solid wastes (food scraps, packaging paper, pet bottles, glass bottles, etc.) to be	

		When not disposed of, it causes contamination of underground and surface water resources, soil pollution and odor problems for human health.	Direct	Low	generated within the scope of the project are subject to the "Waste Management Regulation", "Packaging Waste Control Regulation", "Zero Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314. It will be disposed of in accordance with the “Waste Regulation”. Panels, switches, solar regulators, inverters, etc that break down and become idle during or after the activity in question. The materials will be temporarily stored in the Hazardous Waste Storage Area in the existing facility, classified according to their properties and delivered to licensed recycling companies for recycling. Wastes that cannot be recycled will be	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
					given to licensed companies to be disposed of in accordance with the conditions specified in the "Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314.	

AIR POLLUTION	**Land Preparation and Construction Phase** Dust emissions from excavation works and exhaust gas from construction machinery and vehicles to be used during the land preparation and construction phase of the project emissions will occur.	Emissions may temporarily cause air pollution and indirectly soil and water pollution. It will also have temporary effects on human health flora and fauna in the close vinicity.	Direct	Low	In order to minimize dust emissions that will occur during the land preparation and construction phase; Irrigation will be done with water sprinklers on the road routes, filling and unloading operations will be carried out without blowing, vehicles will be covered with tarpaulins during the transportation of materials and the upper part of the material will be kept at 10% humidity. In order to minimize the emissions resulting from vehicles, all vehicles and equipment to be used will be routinely checked, vehicles that require maintenance will be taken into maintenance, and other vehicles will be used in the works until their maintenance is completed. In addition, they will be warned to work in accordance with the Traffic Law and care will be taken to ensure that they load in accordance with the loading standards. At all stages of the project, the provisions of the "Regulation on the Control of Industrial Air Pollution"	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
					which came into force after being published in the Official Gazette dated 03.07.2009 and numbered 27277 will be complied with. *The "Exhaust Gas Emission Control Regulation" and its provisions*, which came into force after being published in the Official Gazette dated 11.03.2017 and numbered 30004, will be complied with during the land preparation, construction and operation stages of the Project.	

NOISE AND VIBRATION	**Land Preparation, Construction and Stages:** During the land preparation and construction phases of the project, noise will be generated from the operation of construction equipment and machinery equipment.	Noise has negative effects on human health and flora-fauna.	Direct	Low	The noise that will occur during the construction phase of the project will be local and temporary and will end at the end of construction. During this phase, regular checks of the work machines to be used will be made to ensure that the limit values specified in the Environmental Noise Control Regulation are not exceeded. Care will be taken to ensure that as few vehicles as possible operate at the same time. During the construction phase, noise will vary throughout the day during the works, but since the works will be carried out during the day (07:00-19:00), noise generation will be limited. During the works within the scope of the project, necessary measures will be taken to minimize noise generation, taking into account the conditions to be observed in road vehicles and the conditions to be observed in equipment used in open areas.	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
					In addition, in the project area, the issues specified regarding the "noise criteria for construction sites" will be complied with regarding the noise that will occur during the construction phase, and vehicles with traffic inspections, exhaust measurements and maintenance will be used. In addition, if necessary, workers will be provided with headgear, headphones, earplugs, etc. specified in the Labor Law Number 4857. Protective clothing and equipment such as will be provided.	

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

CULTURAL HERITAGE	Chance Find Prodecure	Destruction or damage to cultural heritage	Indirect	Low	Within the scope of the project, in the definitions section of Article 3 of the Law on the Protection of Cultural and Natural Assets No. 2863, Cultural Assets; Because it defines all movable and immovable assets above ground, underground or under water that are related to science, culture, religion and fine arts from prehistoric and historical periods or that are the subject of social life in prehistoric or historical periods and have scientific and cultural unique value. If any cultural property falling within the scope of Law No. 2863 is encountered during the underground applications, the work will be stopped immediately and the Batman Cultural Heritage Preservation Regional Board Directorate and the relevant Museum Directorate will be notified and the Chance Find Procedure will be applied.	

TRAFFIC, PEDESTRIAN SAFETY AND TRANSPORTATION	Temporary Blockage of Transportation Roads between Settlements	Traffic Vehicles Cause Destruction on Roads and Buildings	Indirect	Low	Ensure all vehicles during construction adhere to the set speed limit of 30 km/h. Install traffic and warning signs around and near the sub-project area. Make the sub-project area clearly visible. Inform the local community about potential hazards and risks through brochures and posters placed in commonly frequented areas like the headman's office, hospital, health center, mosque, coffee house, and marketplace. Schedule activities impacting local traffic to avoid rush hours as much as possible. Provide training for all sub-project drivers on road safety, speed limits, traffic rules, and necessary precautions. Ensure that vehicle weights do not exceed legal limits as per the Highway Traffic Regulation. Use licensed carriers to transfer hazardous chemicals or waste,	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
					ensuring no threats to community health. Use pre-designated routes for special cargo in coordination with relevant authorities to avoid traffic congestion; these routes will be announced in advance to minimize disturbances. Collaborate with the Municipality to jointly plan traffic arrangements. Surround the construction site with fencing, curtains, or protective tape to prevent unauthorized access and uncontrolled entries.	

EFFECTS ON BIODIVERSITY	Land Preparation and Construction Phase During the land preparation and construction phase of the project, affecting biodiversity	Species loss (extinction) is the cause of fragmentation and degradation of habitats.	Indirect	Low	Remove vertebrate species from the area before clearing vegetation. Collect and remove all stones, regardless of size, allowing any species underneath to move away naturally. Workers handling this should wear gloves. Allow tortoises ample time to leave the area when encountered. If vertebrate species are spotted in the work area, allow them to move away on their own without interference. Provide training for vehicle drivers to recognize and understand how to handle encounters with local vertebrate species. Regularly inspect and minimize vehicle outputs (e.g., noise, light, exhaust emissions). Cover vehicles after loading to prevent materials from dispersing into the environment. Limit vehicle speed to a maximum of 30 km/h across the entire area.	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
					Minimize noise generation from machinery during plant operations. Use non-LED light sources and direct them to avoid illuminating surrounding vertebrate habitats, especially during night-time. Prohibit hunting, trapping, or intentional harm to wildlife by sub-project workers and drivers. Ensure that all facility-generated waste is transferred to proper waste treatment and storage facilities, and that transfer vehicles follow designated routes without releasing waste into the environment.	

Table 10. Operation Phase Mitigation Plan

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

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

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

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
TRAFFIC, PEDESTRIAN SAFETY AND TRANSPORTATION	Temporary Blockage of Transportation Roads between Settlements	Traffic Vehicles Cause Destruction on Roads and Buildings	Indirect	Low	Install traffic and warning signs around and near the sub-project area. Make the sub-project area clearly visible. Use licensed carriers to transfer waste, ensuring no threats to community health. Collaborate with the Municipality to jointly plan traffic arrangements. Surround the construction site with fencing, curtains, or protective tape to prevent unauthorized access and uncontrolled entries. Limit vehicle speed to a maximum of 30 km/h across the entire area.	

Problem		Potential Impact	Impact Type	Impact Significance	Mitigation Measures	Responsible Party
EFFECTS ON BIODIVERSITY	Land Preparation and Construction Phase During the land preparation and construction phase of the project, affecting biodiversity	Species loss (extinction) is the cause of fragmentation and degradation of habitats.	Indirect	Moderate	Provide training for vehicle drivers to recognize and understand how to handle encounters with local vertebrate species. Cover vehicles after loading to prevent materials from dispersing into the environment. Use non-LED light sources and direct them to avoid illuminating surrounding vertebrate habitats, especially during nighttime. Ensure that all facility-generated waste is transferred to proper waste treatment and storage facilities, and that transfer vehicles follow designated routes without releasing waste into the environment.	

Table 11. Land Preparation and Construction Phase Monitoring Plan

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

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

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

Table 12. Operation Phase Monitoring Plan

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

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

2. Stakeholder Engagement

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

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

The people who will be primarily affected by the project are the people living in Bağlarbaşı neighborhood, which is located in settlement close to the project route.

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

The stakeholder analysis table determined within the scope of the project in question is given Table 13.

Table 13. Stakeholder Analysis Table

Parties Affected by the Project	The project is located in the residential area. Bağlarbaşı Neighborhood and approximately 3,557 people living here. Gercüş Municipality Project workers
Other Interested Parties	World Bank Ilbank Ministry of Environment, Urbanization and Climate Change Energy and Natural Resources Ministry Batman Governorship Provincial Directorate of Environment, Urbanization and Climate Change Ilbank Diyarbakır Regional Directorate Gercüş District Governorate

	Türkiye Electricity Distribution Inc. Dicle Electricity Distribution Inc. The contractor Advisor
Vulnerable/Disadvantaged Individuals and/or Groups*	Vulnerable individuals/groups living in Bağlarbaşı Neighbourhood 373 people

*Resource: Mukhtar Meeting, 2024

Grievance Mechanism

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

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

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

- From people communicating via phone/e-mail,
- From stakeholders who want to communicate based on project documentation,
- Coming from construction period personnel,
- From project workers,

- It will record and track all grievances forwarded to contractors and written in petitions in a single system.

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

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

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

Contact channels for formal grievances are provided below.

Gercüş Municipality:

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

Website: http://www.gercus.gov.tr/gercus-belediyesi
Email: gercusbelediyesi@mynet.com

Phone number: 0488 341 21 58
Official letter: Çukurçeşme Mahallesi kazım koyuncu Bulvarı No 28 Gercüş/BATMAN

Presidential Communication Center:

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

[3] Environmental & Social Framework for IPF Operations

Website: www.cimer.gov.tr
Call Center: 150
Phone number: +90 312 525 55 55
Fax number: +90 0312 473 64 94
Foreigners Contact Center:

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

Web site: www.yimer.gov.tr
Call Center: 157
Phone number: +90 312 5157 11 22
Fax number: +90 0312 920 06 09

ILBANK:

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

Website: https//www.ilbank.gov.tr/form/bilgiedinmeuluslararasi
E-mail: bilguidb@ibank.gov.tr and etikuidb@ilbank.gov.tr
Phone number: +90 312 508 79 79
Official letter: ILBANK International Relations Unit, GM Team (letters should be marked as personal or confidential) Emniyet Neigbourhood Hipodrom Street No: 9/27 Yenimahalle/Ankara

WORLD BANK:

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

Website: https://www.inspectionpanel.org/how-to-file-grievance
E-mail: ipanel@worldbank.org
Phone number: +1 202 458 5200

Official letter: Control Panel, Mail Stop MC10-1007, 1818 H Street, NW, Washington, DC 20433, USA

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

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

In addition, a Grievance Mechanism will operate for employees, and all project employees will be notified through written and verbal communication. Each employee will be informed about the grievance mechanism when hired and details of how the mechanism works will be specified. Requests requiring urgent solution and/or support will be responded to and support will be provided on the same day. Grievance Mechanism Flow Chart is given Table 14.

Table 14. Grievance Mechanism Flow Chart

Period	Action
Business Induction Letter	Before the project activity begins, the residents of the Neighbourhood, will be informed that the work will start with a Start of Work Information Letter (See ANNEX 12). This letter will include the contact information of a person authorized by the municipality.
Submission of Grievance	The subject of the grievance is communicated by the grievance through any communication channel.
Grievance Registration	Grievances will be recorded with the Grievance Form (See ANNEX 11). All grievance will be recorded within two (2) days and feedback will be given to the grievance. If the complainant requests that this grievance be handled anonymously, this grievance will be recorded anonymously and the request will be accommodated. The action taken regarding the issue will be published on the Municipality's website if the anonymous person's communication channel is not available.
Evaluation of Grievance	Grievance will be evaluated within 10 business days and it will be determined whether the grievance meets the acceptability criteria. If the grievance is not valid, the necessary explanation will be made to the complainant.
Responding to Grievance	The grievance will be evaluated. If necessary, the grievance will be examined on-site. Depending on the type of grievance, representatives of the affected community will be interviewed. The actions taken to resolve the grievance and the results will be communicated to the petitioner. If the issue underlying the grievance is not resolved, the complainant will have the right to apply to the

	Court of First Instance and/or ILBANK, depending on the content of the grievance .
Grievance Closing	Unless an alternative agreement is made regarding the closing time of the complainant's grievance, relevant actions will be taken and documented within fifteen (15) business days from the date of application. Then, the grievance will be closed with the grievance close out form (See ANNEX 13). Recorded grievances and their responses will be shared on the Gercüş Municipality's website. Thus, all complainants, including anonymous complainants, will be informed about their grievances and their consequences.
In Case the Grievance Cannot Be Resolved	The project grievance mechanism is monitored by ILBANK. Grievances will be evaluated by the Gercüş Municipality and ILBANK will be informed. The actions taken to resolve the grievance will be communicated to the complainant by the Municipality. ILBANK will monitor the Gercüş Municipality to ensure that the grievance mechanism operates smoothly. If the grievance is not resolved, the complainant can apply to the Civil Court of First Instance or ILBANK.
Reporting	The responsible department will ensure that all processes are carried out in accordance with the Grievance Process. A Consultation form will be prepared to record the questions and/or concerns of stakeholders during the process (See ANNEX 14). Grievances will be monitored and reported at regular intervals so that they can be analyzed regarding their type, frequency and how the grievances are resolved.

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

3. Annexes

Annex-1 Parcel Area Coordinates
Annex-2 Location Map
Annex-3 Land Registry
Annex-4 Project Area Photos
Annex-5 Project Area Transportation Road Route
Annex-6 Electricity Transmission Line Route
Annex-7 Dust Emission Mass Flow Calculation
Annex-8 Noise Calculation
Annex-9 Connection Agreement
Annex-10 SPP Aluminum and Steel Carrier System Static Calculation Report
Annex-11 Grievance Form
Annex-12 Starting Work Information Letter
Annex-13 Grievance Close Out Form
Annex-14 Consultation Form
Annex-15 Line Diagram

Annex-16 EIA out of Scope Letter

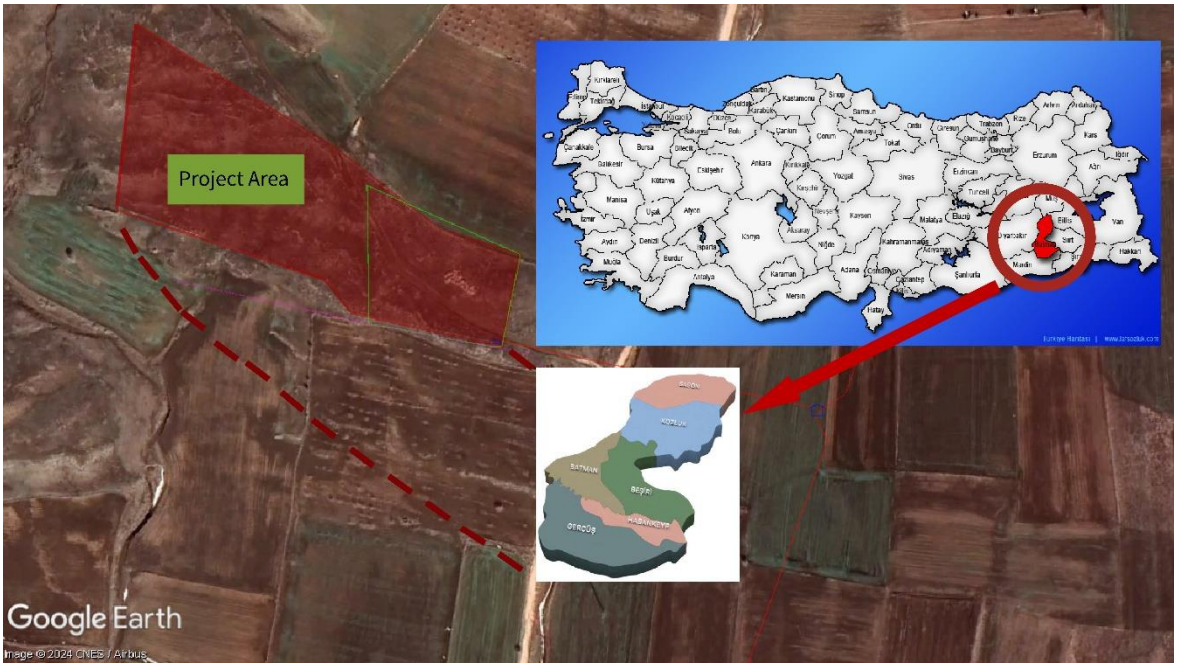
ANNEX 1

PARCEL AREA COORDINATES

AREA NAME	CORNER COORDINATES	Coordinate Order: Right, Up Datum: ED-50 Type: UTM D.O.M. : 27 Zone: 36 Scale Factor: 3 degrees	
	No	Y	X
Project Area	1	445616,363	4162449,027
	2	445600,636	4162340,355
	3	445724,889	4162297,363
	4	445740,656	4162277,280
	5	445819,145	4162259,008
	6	445831,495	4162256,708
	7	445843,339	4162312,128
	8	445795,733	4162325,758
	9	445735,989	4162373,877
	10	445616,364	4162449,027

ANNEX 2

LOCATION MAP



ANNEX 3

LAND REGISTRY

720J0l04244

Türkiye Cumhuriyeti

TAPU SENEDİ

İli	BATMAN	Fotoğraf
İlçesi	GERCÜŞ	
Mahallesi	BAĞLARBAŞI	
Köyü		
Sokağı		
Mevkii	KENDALA	

Satış Bedeli	Pafta No.	Ada No.	Parsel No.	Yüzölçümü ha	Yüzölçümü m²	Yüzölçümü dm²
0,00	M46-C-18-B-1-A	138	24		9.776,51 m2	

GAYRİMENKULÜN

Niteliği	HAM TOPRAK
Sınırı	Planındadır Zemin Sistem No : 113715145 QRKodu kullanarak taşınmazın haritasına ulaşabilirsiniz.
Edinme Sebebi	BAĞLARBAŞI Mah. 138 Ada 6 Parsel taşınmazının İfraz İşlemi (TSM) işleminden.
Sahibi	MALİYE HAZİNESİ Tam

Geldisi		Yevmiye No.	Cilt No.	Sahife No.	Sıra No.	Tarihi	Gittisi	
Cilt No.		1293	26	2567		11/03/2021		Cilt No.
Sahife No.								Sahife No.
Sıra No.								Sıra No.
Tarih								Tarih

Siciline Uygundur
AZİZ ÇALI
Müdürü

NOT : * Mülkiyetin gayri ayni haklar ile şerhler için tapu kütüğüne müracaat edilmelidir.
** Tebligat Kanunu Hükümleri gereğince adres değişikliği ilgili Tapu Sicil Müdürlüğüne bildirilecektir.

T.C.
BATMAN VALİLİĞİ
Çevre ve Şehircilik İl Müdürlüğü

Sayı : E-30680980-401-861598 28.04.2021

Konu : Tahsis (Gercüş Belediyesi)

GERCÜŞ KAYMAKAMLIĞINA
(Milli Emlak Şefliği)

İlgi : 29.03.2021 tarihli ve E-54101976-756.01-646778 sayılı yazınız.

İlgi yazınıza istinaden; İlçeniz, Bağlarbaşı Mahallesi tapusuna kayıtlı 138 ada 24 parsel numaralı taşınmazın üzerinde "münhasıran belediye hizmetlerinde kullanılması şartıyla güneş enerjisi santrali kurulmak üzere" Gercüş Belediye Başkanlığına 2 yıl süreyle ön tahsisi, Bakanlığımızın (Milli Emlak Genel Müdürlüğü) 22.04.2021 tarihli ve 845030 sayılı yazısıyla uygun görülmüştür.

Bilgi edinilmesi ile ekli yazıda belirtilen hususlar çerçevesinde gereğini rica ederim.

Muzaffer ÖZKAN
Vali a.
Çevre ve Şehircilik İl Müdürü

Ek: 09/03/2021 tarihli E-66844966-401[3121_128771]-467967 sayılı yazı. (2 sayfa)

Çevre ve Şehircilik İl Müdürlüğü Bayındır Mah.Cizre Cad.No:48 Merkez BATMAN
Telefon: 04882133011 Faks: 04882139025
KEP Adresi : batmancevrevesehircilik@hs01.gov.tr mail: batman@csb.gov.tr
Bilgi için:Ömer YEŞİLMEN
Milli Emlak Uzmanı

T.C.
ÇEVRE, ŞEHİRCİLİK VE İKLİM DEĞİŞİKLİĞİ BAKANLIĞI
MİLLİ EMLAK GENEL MÜDÜRLÜĞÜ

21.05.2024

Sayı : E-66844966-400[325.01.02]-10264622
Konu : Gercüş Belediye Başkanlığı/GES
(3121-140574/3121-140443)

DAĞITIM YERLERİNE

İlgi : a) Bakanlığımızca (Bakan Müşavirliği) yayımlanan 2018/11 sayılı İç Genelge.
b) 22.04.2021 tarihli ve 845030 sayılı yazımız.
c) 27.05.2021 tarihli ve 996288 sayılı yazımız.
ç) Gercüş Belediye Başkanlığının 14.08.2024 tarihli ve E-69073808-000-362 sayılı yazınız.
d) Gercüş Belediye Başkanlığının 20.08.2024 tarihli ve E-69073808-000-366 sayılı yazısı.

İlgi (a) Bakanlığımız İç Genelgesi ile kamu idareleri adına tesis edilecek tahsis işlemlerinin 2018/8 sayılı Cumhurbaşkanlığı Genelgesi uyarınca teşkil ettirilen Komisyondan alınacak izinden muaf tutulduğu dikkate alınarak ilgi (ç ve d) yazılar ile tahsis talebi yenilenen; İliniz, Gercüş İlçesi, Yolağzı Mahallesinde bulunan, mülkiyeti Hazineye ait 112 ada, 381 parsel numaralı ve 11.979,93 m² yüzölçümlü taşınmaz ile Bağlarbaşı Mahallesinde bulunan, mülkiyeti Hazineye ait 138 ada, 24 parsel numaralı ve 19.776,51 m² yüzölçümlü taşınmazın, **6446 sayılı Elektrik Piyasası Kanunu, 5346 sayılı Yenilenebilir Enerji Kaynaklarının Elektrik Enerjisi Üretimi Amaçlı Kullanımına İlişkin Kanun ve Enerji Piyasası Düzenleme Kurumu (EPDK) mevzuatı kapsamında ilgili İdarelerden gerekli izinlerin alınması, üretilecek elektriğin münhasıran Belediye hizmetlerinde kullanılması, ticari amaçla kullanılmaması, üçüncü kişilere ticari ya da gayri ticari amaçla kullandırılmaması/devredilmemesi, tahsisli idarenin ilgili mevzuatları ile belirlenen ve alınması zorunlu olan gelirler dışında her ne ad altında olursa olsun herhangi bir ücret alınmaması, bu hususlar dışında ticari amaca yönelik ünitelerin söz konusu ve zorunlu olması durumunda ise Hazine Taşınmazlarının İdaresi Hakkında Yönetmeliğin 67, 70 ve 73/A maddesine göre işlem yapılması kaydıyla,** 5018 sayılı Kanunun 47 nci maddesi ile 1 no.lu Cumhurbaşkanlığı Teşkilatı Hakkında Cumhurbaşkanlığı Kararnamesinin 101 inci maddesinin birinci fıkrasının (ç) bendi uyarınca **"Güneş enerjisi santrali kurulmak üzere"** Gercüş Belediye Başkanlığı adına 2 (iki) yıl süreli ön tahsisi uygun görülmüştür.

Belirtilen süre içerisinde yatırım projesinin hazırlanması, yatırım programına alınması ve üzerinde tesis/bina inşaatına başlanılması halinde ön tahsisin hizmet süresince devamı için kesin tahsise dönüştürülmesi yönünde talepte bulunulacaktır. Aksi halde tahsis işlemi herhangi bir işleme ve yazışmaya gerek olmaksızın kendiliğinden kalkmış sayılacaktır.

21.08.2024

Bilgi için: [illegible]
Çevre ve Şehircilik Uzmanı

Bilgi edinilmesini ve gereğini rica ederim.

Arif Mesut ÖZDEMIR
Bakan a.
Daire Başkanı

Dağıtım:

Gereği:
BATMAN VALİLİĞİNE (Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü)

Bilgi:
Gercüş Belediye Başkanlığına

Bilgi için:Gözde ATOM
Çevre ve Şehircilik Uzmanı

T.C.
GERCÜŞ BELEDİYE BAŞKANLIĞI

Sayı : E-69073808-000-453 13.12.2024
Konu : Tahsis Hk.

BATMAN İL TARIM VE ORMAN MÜDÜRLÜĞÜNE

İlçemizde Belediyemiz yetki sahasında bulunan Bağlarbaşı Mahallesi sınırları içinde bulunan 138 ada 27 parsel numaralı taşınmaz tapu kaydında mera olarak geçmektedir. Ekte krokisini gönderdiğimiz 893,02 sinin 4*4 m boyutlarında 16 m2 lik su deposu ve 78 metre uzunlukta 50 cm genişliğinde enerji nakil hattının yer altından geçirilmesi Projesi ile yol olarak kullanılmak üzere 4342 Sayılı Mera Kanunun 14/c bendi kapsamında Belediyemize tahsis edilmesi hususunda;

Bilgilerinize rica ederim.

Gündüz GÜNAYDIN
Belediye Başkanı

Ekler :
1 - Meclis Kararı (1 Sayfa)
2 - ÇED Kurum Görüşü (1 Sayfa)
3 - Proje (1 Sayfa)
4 - Kadastro Tekniğine Uygun Harita (4 Adet)
5 - Kroki (1 Adet)

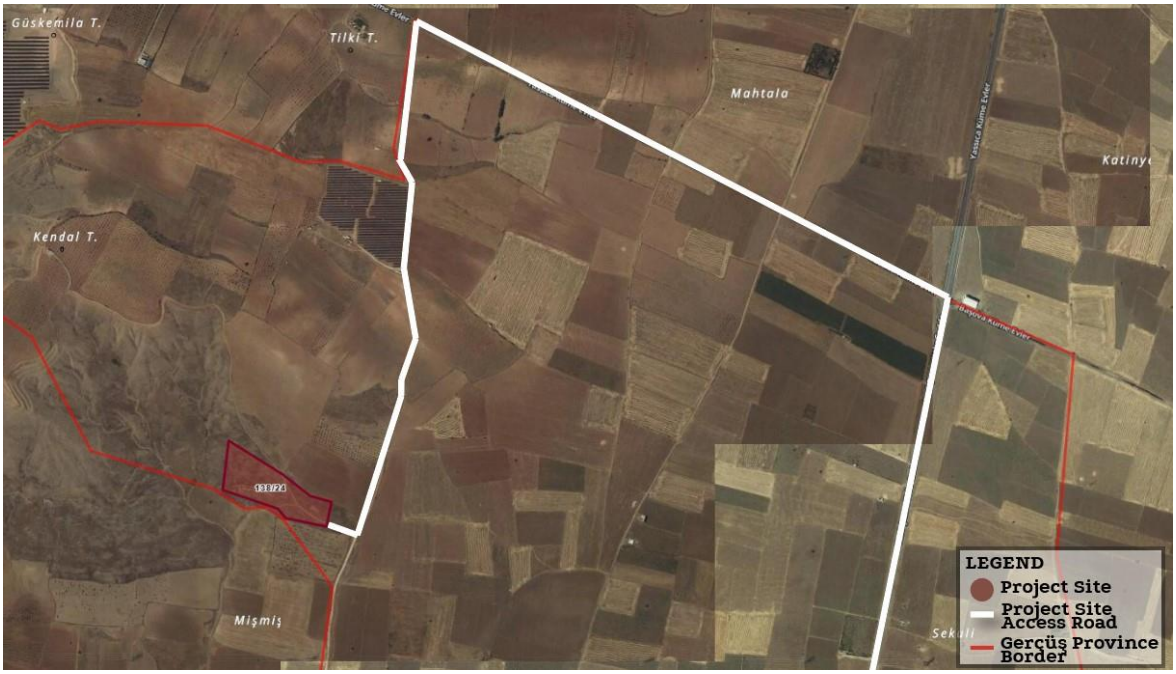
Adres: Çukurçeşme Mahallesi Lise Cad. No:80
Telefon No: (488)341 21 58 Faks No: (488)341 22 90
e-Posta: gercusbelediyesi@mynet.com İnternet Adresi: http://www.gercus.bel.tr
Kep Adresi: gercusbelediyesi@hs01.kep.tr
Bilgi için: Esra KAYNAK
Mimar
Telefon No: -

ANNEX 4

PROJECT AREA PHOTOS

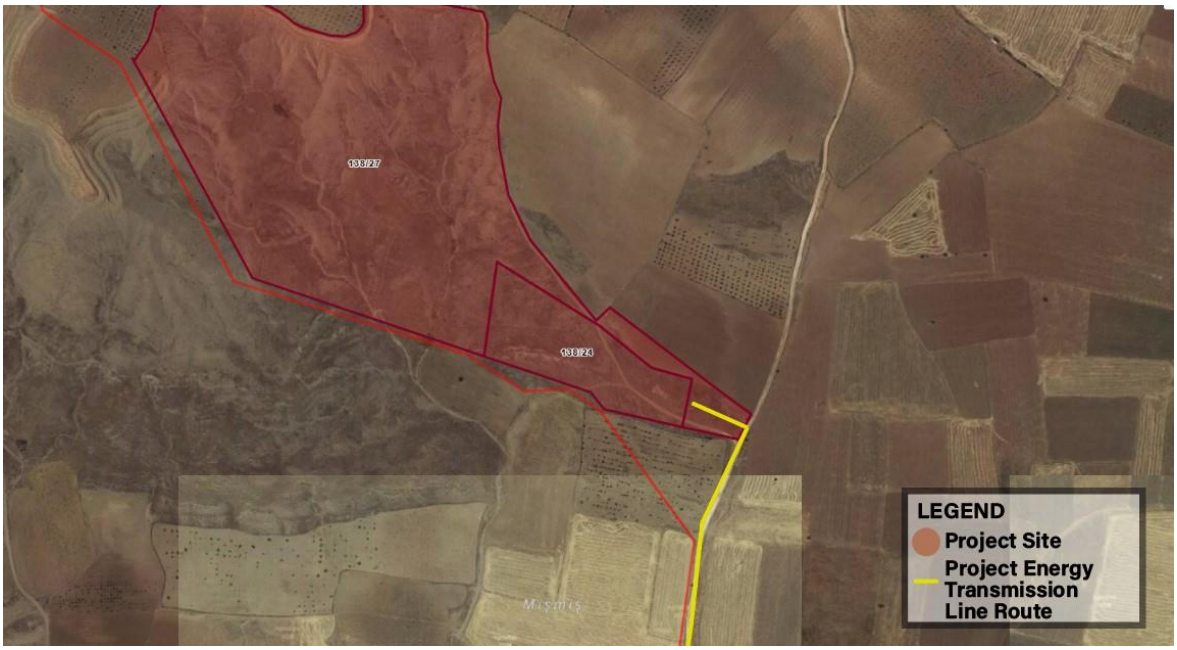
ANNEX 5

PROJECT AREA ACCESS ROAD ROUTE



ANNEX 6

ELECTRICITY TRANSMISSION LINE ROUTE



ANNEX 7

DUST EMISSION MASS FLOW CALCULATION

Mass Flow Calculations Emission Factors (**SKHKKY**)

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

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

Dismantling Excavation Materials and Loading them into Vehicles

Material Dismantling

Within the scope of the project, a total of 518 m^3 of materials will be dismantled in the project area. The mass flow rate of the emission that will occur is calculated using the controlled and uncontrolled emission factor and is given below.

Controlled

Dust Emission **(E_1)** = [518 m^3 x 1,7 tons/m^3 x 0,0125 kg/ton] / [21 days x (12 h/day)]

= **0,04 kg/hour**

Uncontrolled

Dust Emission **(E_1)** = [518 m^3 x 1,7 tons/m^3 x 0,025 kg/ton] / [21 days x (12 h/day)]

= **0,087 kg/hour**

Storage of material

The resulting excavation waste will be temporarily stored where the excavation is carried out and will later be used as filling material. In this context, it is planned to store 518 m^3 of materials at approximately 3 m elevations. Calculations for controlled and uncontrolled dust emissions that will occur in these processes are given below:

Excavation storage area = 518 m^3 / 3 m **= 172,67 m² = 0,017 ha**

Controlled

Dust Emission **(E_2)** = 0,017 ha x 2,9 kg/ha.day x (1 day/24 hours)
= 0,003 kg/hour

Uncontrolled

Dust Emission **(E_2)** = 0,017 ha x 5,8 kg/ha.day x (1 day/24 hours)
= 0,009 kg/hour

Total Emission (Controlled); **= $E_1 + E_2$**
= 0,04 + 0,003
= 0,043 kg/hour

Total Emission (Uncontrolled); **= $E_1 + E_2$**
= 0,087 + 0,09
= 0,119 kg/hour

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

Since the dust emission value calculated in the controlled situation was 0,119 kg/hour, air quality modeling was not needed within the scope of the construction phase of the project

ANNEX 8

NOISE CALCULATION

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

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

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

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

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

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

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

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

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

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

Equivalent Noisy of your level To the distances According to Distribution

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

ANNEX 9

CONNECTION AGREEMENT

LİSANSSIZ ELEKTRİK ÜRETİCİLERİ İÇİN DAĞITIM SİSTEMİNE BAĞLANTI ANLAŞMASI

Üretici No: 21LEÜ077 - Tüketim Abone No: **EK-1**
Tarih: 07/12 / 2021 Sayısı:01[1]72[2]02[3]02[4]749[5]

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

Taraflar :

Dağıtım Şirketi:	Üretici
DİCLE ELEKTRİK DAĞITIM A.Ş.	GERCÜŞ BELEDİYESİ-GERCÜŞ BELEDİYESİ GES 1
DİCLE ELEKTRİK DAĞITIM A.Ş. Gökalp V.D: 295 036 8442 Tel: 0412 280 86 30 Fax: 0412 251 21 35 Peyas Mah. Urfa Bulvarı No: 114 Kayapınar / DİYARBAKIR	
Kanuni Adresleri Ş. Urfa Yolu 3. Km, DİYARBAKIR	Çukurçeşme Mah.Lise Cad. No:80 Gercüş/BATMAN
Furkan ZİNCİRKIRAN Müşt.Hiz.Müdürü	Yaşar ARVAS Genel Müdür
	Gündüz GÜNAYDIN Resmi Kurum Yetkilisi

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

---

[1] Dağıtım Şirketinin numarası yazılır. Numaralar 17/3/2004 tarih ve 2004/3 sayılı YPK Kararının 2 numaralı ekine göre belirlenir. Numaralar iki haneli olarak yazılır.
[2] Dağıtım bölgesindeki ilin trafik plaka kodu yazılacaktır.
[3] Üretim kaynak kodu yazılır. Buna göre rüzgar için 01, güneş için 02, hidrolik için 03, jeotermal için 04, biyogaz için 05, biyokütle için 06, doğalgaz için 07, rüzgar+güneş için 10, biyogaz+güneş için 11, biyogaz+doğalgaz için 12 kodları kullanılacaktır. Hibrit üretim tesisi kapsamında burada belirtilenlerden farklı bir kaynak kompozisyonu durumunda EPDK görüşü alınır.
[4] Abone grubu kodları kullanılacaktır. Buna göre mesken için 01, ticarethane için 02, tarımsal sulama için 03, içme ve kullanma suyu için 04, sanayi için 05, diğer 1 için 06, diğer 2 için 07, mesken+ticarethane için 08, mesken+sanayi için 09, ticarethane+sanayi için 10, mesken+ticarethane+sanayi için 11, mesken+tarımsal sulama için 12, içme ve kullanma suyu+ticarethane için 13 kullanılacaktır. Tüketim birleştirme kapsamında burada belirtilenlerden farklı bir abone kompozisyonu durumunda EPDK görüşü alınır.
[5] İlk anlaşmaya 0000001 sırası verilerek teselsül ettirilir.

ANNEX 10

SPP ALUMINUM AND STEEL CARRIER SYSTEM STATIC CALCULATION REPORT

NDA DANIŞMANLIK A.Ş.
Söğütözü Mah. 2176 Sok. Platin Tower İş Merkezi No:7/45 Çankaya/ANKARA
TEL:0312 4000414/0312 2842420-FAKS:0312 2842421
ndaproje@gmail.com

Yatırımlarınız Bizimle Hayat Buluyor

ARAZİ UYGULAMALI GÜNEŞ ENERJİSİ SANTRAL PROJESİ

ONAY YAPACAK KURUM

Kontrol Edilmiştir
Uygundur
Doç. Dr. MEHMET BARAN
YILDIRIM BEYAZIT ÜNİVERSİTESİ
MÜHENDİSLİK ve DOĞA BİLİMLERİ FAKÜLTESİ
İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ
ÖĞRETİM ÜYESİ

Ankara Yıldırım Beyazıt Üniversitesi
Mühendislik ve Doğa bilimleri Fakültesi
27.10.2021 Tarihi
E-60293916-604.01.01-84100 Sayılı
Evrakında İncelenen Projedir
İnşaat Mühendisliği Bölümü Tarafından
İncelenmiştir ve Onaylanmıştır

PROJE SAHİBİ FİRMANIN	ADI SOYADI	GERCÜŞ BELEDİYESİ
	ADRESİ	Çukurçeşme Mah. Lise Caddesi No:80 Gercüş / BATMAN
	VERGİ DAİRESİ, NO	
ELEKTRİK PROJE MÜELLİFİ		NDA DANIŞMANLIK A.Ş.

ARSANIN ÖZELLİKLERİ

PROJENİN ADI		GERCÜŞ BELEDİYESİ GES1			
İL	İLÇE/BELEDİYE	ADRESİ	PAFTA NO	ADA NO	PARSEL NO
BATMAN	GERCÜŞ	BAĞLARBAŞI MAH.		138	24

GERCÜŞ BELEDİYESİ GES1 GÜNEŞ ENERJİ SANTRALİ PROJESİ TAŞIYICI SİSTEMLERİN ALT KONSTRÜKSİYON HESAP RAPORU

PROJE SORUMLUSU	ADI SOYADI	ODA NO	MESLEK	VERGİ D.	VERGİ NO	SORUMLULUK İMZASI
YAPAN	NECMİYE KARATAŞ	49351	İNŞAAT MÜH.	MALTEPE	630 047 2495	

HESAP TARİHİ	ÖLÇEK	PROJE NO PAFTA NO	MODÜL Gücü-Sayısı	EVİRİCİ Gücü-Sayısı	DC Kurulu güç	AC Kurulu güç
10/2021		İ-02	450 Wp 1980 Adet	50 kWe 15 Adet		740 kW

ANNEX 11

GRIEVANCE FORM

	GERCÜŞ MUNICIPALITY **SOLAR POWER PLANT PROJECT**
	GRIEVANCE FORM

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

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

2. DETAILED INFORMATION ABOUT THE GRİEVANCE	
Description of the grievance :	

Solution method requested by the complainant	

Registrant Name Surname/Signature

Complainant Name Surname/Signature

ANNEX 12

INFORMATION LETTER ON STARTING WORK

Dear Bağlarbaşı Neighbourhood, Residents,

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

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

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

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

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

Regards,

Contact Persons:

Name Surname Phone.

ANNEX 13

GRIEVANCE CLOSE OUT FORM

	GERCÜŞ MUNICIPALITY **SOLAR POWER PLANT PROJECT**
	GRIEVANCE CLOSE OUT FORM

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

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

2. INTERVIEW DETAILS	
Questions about the project:	

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

ANNEX 14

CONSULTATION FORM

	GERCÜŞ MUNICIPALITY **SOLAR POWER PLANT PROJECT**
	CONSULTATION FORM

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

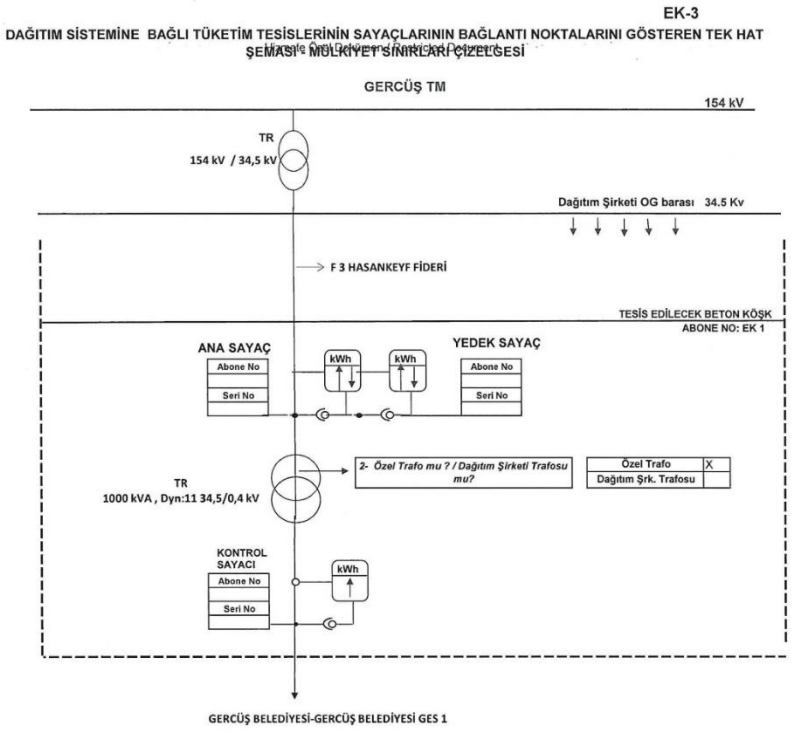
Stakeholder Type				
State agency ☐	PEB ☐	Private Enterpris ☐	Job Room ☐	NGO ☐
Interest Groups ☐	Industrial Unions ☐	Labor Union ☐	Media ☐	University ☐

2. INTERVIEW DETAILS	
Questions about the project:	
Concerns/feedback regarding the project:	

Responses to the views expressed above:	

ANNEX 15

LINE DIAGRAM



ANNEX 16

EIA OUT OF SCOPE LETTER

T.C.
BATMAN VALİLİĞİ
Çevre ve Şehircilik İl Müdürlüğü

Sayı : E-16590385-220.03-1136597 17.06.2021
Konu : Muafiyet

GERCÜŞ BELEDİYE BAŞKANLIĞINA

İlgi : 15.06.2021 tarihli ve 69073808-460 sayılı yazımız.

Batman İli, Gercüs İlçesinde Bağlarbaşı Mah. 138 Ada 24 Nolu Parsel mevkiinde Gerçüş Belediyesi tarafından yapılması planlanan Güneş Enerjisi Santralı (740 Kw- 19.77,51 m2) projesi, 25/11/2014 tarih ve 29186 sayılı Resmi Gazete'de yayınlanarak yürürlüğe giren ÇED Yönetmeliği Listelerindeki eşik değerden az olduğu için kapsam dışı olarak değerlendirilmiştir.

Ancak, planlanan yatırım ile ilgili olarak, 5491 sayılı kanunla değişik 2872 sayılı Çevre Kanunu ile bu Kanuna istinaden çıkarılan Yönetmeliklerin ilgili hükümlerine uyulması ve diğer mer'i mevzuat çerçevesinde öngörülen gerekli izinlerin alınması, ekolojik dengenin bozulmamasına, çevrenin korunmasına ve geliştirilmesine yönelik tedbirlere riayet edilmesi gerekmektedir.

Bilgilerinizi ve gereğini rica ederim.

Abdullatif AYAN
Çevre ve Şehircilik İl Müdürü V.

Güvenli Elektronik İmzalı
Aslı İle Aynıdır.
17.06.2021
Veysel ANGIN
Memur Görevlisi

Gercüş Belediyesi
18.06.2021
484
Bld. Bşk.

Bu belge, güvenli elektronik imza ile imzalanmıştır.
Doğrulama Kodu: C65DB524-1DC5-48B8-AC06-8B33C71F6772 Doğrulama Adresi: https://www.turkiye.gov.tr/ebd

Bayındır Mahallesi Cizre Caddesi No:40 72070 BATMAN
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Kep Adresi: batmancevresehircilik@hs01.kep.tr

Bilgi için:Muharrem ÖZİLHAN
Çevre Mühendisi