



Ukraine  
Solar PV project

## Non Technical Summary

## Introduction

Kernel is one of Ukraine's largest and most diversified agribusiness groups, operating 358,000 hectares of leasehold farmland with advanced large-scale machinery, sustainable agronomic practices, and a highly efficient cluster management system. Its core business spans integrated crop production, grain logistics, oilseed processing, trading, and renewable energy generation. As the country's leading grain exporter—handling around 12% of Ukraine's total grain exports—and a major operator of grain export terminals, inland silo networks, and the largest private railcar fleet, Kernel plays a pivotal role in Ukraine's food security and global agricultural supply chains.

Kernel operates its core activity under an integrated and certified ISO 9001/14001/45001 management system.

Kernel, with financial support from the European Bank for Reconstruction and Development (EBRD) has launched the development, design, construction and operation of a 106 MWp solar park in Southern part of Ukraine (the "Project").

The Project was categorized B in accordance with EBRD's 2024 Environmental and Social Policy. An Environmental and Social Due Diligence of the Project was undertaken in October-November 2025, in order to structure the Project as per EBRD's Environmental and Social Requirements (ESR). The present document aims at providing the public with general information about the Project.

## What is Solar PV and why is it needed ?

A Solar PV plant is a power plant where photovoltaic panels installed on a dedicated area convert sunlight directly into electricity. Solar panels are mounted on metallic structure, and connected to electric equipment (named inverters and transformers) that allow injecting the produced electricity into the grid.

In a context where Ukraine's energy sector still relies heavily on fossil fuels, including imported ones, solar PV will help reduce reliance on foreign energy sources, enhancing national energy security. Ukraine region enjoys high solar irradiation, especially in regions in the Southern part of Ukraine, making solar PV a viable and sustainable energy source.

Ukraine's renewable energy strategy aims to increase the share of clean power generation and accelerate the transition toward energy independence, with solar PV positioned as a key contributor. Solar PV diversifies the energy portfolio, ensuring complementarity with hydropower during dry seasons and with windpower during calm periods.

## Project Description

The Project is located in the Southern part of Ukraine. The Transmission Line (TL) that will be built to connect the Project to the grid will run from the PV site to an existing substation. The Project area is accessible from the centre of the region by good quality roads (few hours).

The solar panels will be fixed, mounted on metallic structures. The site will be entirely fenced. Construction is expected to be undertaken within 12 months, in 2026-2027. Solar panels will represent by far the main volume of supply for the Project during construction.

## Implementation

Kernel is the owner of ENERGY RTB-2 LLC, which is the Project company. Kernel did not conduct an Environmental Impact Assessment (OVD) for the planned activity; instead, this work was supplemented by the environmental and social assessment required by the EBRD as part of its due diligence process.

It should be noted that the company plans to implement three separate projects: (1) installation of panels (the power plant as a whole), (2) construction of power transmission lines, and (3) connection to the existing substation. Depending on the technical solutions adopted for the transmission line project, it may fall under the scope of the Environmental Impact Assessment (OVD) Law. Kernel will contract an EPC contractor to deliver the Project. The relevant number of workers (during equipment installation) will be needed for the Project construction on all stages of activities.

During operation, ENERGY RTB-2 LLC will rely on service providers for the PV site's regular or occasional Operation & Maintenance (O&M), and only a few permanent staff will be retained by ENERGY RTB-2.

## Applicable E&S Requirements

The Applicable E&S Requirements are:

- Applicable local, national and regional requirements, including those related with environmental and social impact assessments;
- The EBRD's Environmental and Social Policy (ESP 2024) and the incorporated Environmental and Social Requirements (ESRs) 1 to 6, 8 and 10; and,
- Relevant international conventions and protocols relating to environmental and social issues, as transposed into national legislation.

## Physical impacts and mitigation measures

The main physical risks and potential impacts are related to the construction phase and include:

- Increase of vehicles traffic with associated accident risks on the access roads to the PV construction site;
- Local increase of noise, exhaust emissions and occasional obstruction of passage during construction;
- Limitation of access to the fenced PV site;
- Construction of gravel roads inside the PV territory.

## Biodiversity impacts and mitigation measures

**Baseline:** Site visits, literature review and conservation databases review were undertaken in order to identify the biodiversity species possibly present in the Project area. Based on the IUCN red list database and context, the focus was on rodents.

The proximity of the project with protected or internationally recognized areas was also assessed: the PV site and the TL route are entirely outside any area of conservation interest.

The biodiversity surveys confirmed that the land plot acquired for the project primarily consists of grazed pasture land with low productivity, probably due to soil conditions. No flora species of conservation interest were found in the Project's footprint. Rodents are present in the PV site – Spalax rodents, some species of which are red listed in Ukraine, are the only taxon of interest that could potentially be impacted by the Project.

**Mitigation measures:** The adopted mitigation measures aim at verifying the presence or absence of Spalax and adopt impact avoidance and ecological continuity preservation measures during construction. During operation, Spalax, if present, would benefit from the reduced human activities within the PV site.

## Social impacts and mitigation measures

**Employment:** Workers engaged during construction and operation will be formally contracted in line with Ukrainian labour legislation, EBRD ESR2, and Kernel Group's Human Resources and labour management policies. No workers' camp is planned, as construction personnel will be accommodated in nearby settlements or at the available not-occupied local accommodations in accordance with IFC/EBRD Workers' Accommodation Guidance. Informal or unregistered employment will not be permitted,

and all contractors will apply the Project's Code of Conduct covering respectful behaviour, prohibition of alcohol and drugs, and prevention of gender-based violence and harassment.

**Land acquisition and livelihoods:** The land for the SPP has been legally leased from the local Village Council through a negotiated settlement. No physical or economic displacement is triggered; however, informal livestock grazing has been observed on the Project site. Temporary access restrictions during construction may create limited livelihood impacts for informal users. These impacts will be managed through stakeholder engagement, identification of affected users, and proportionate mitigation measures. No expropriation processes are involved.

**Lithic objects:** No cultural heritage assets, including archaeological sites or intangible heritage elements, are located within the Project footprint. Although several kurgans are present in the wider area, they lie outside the zone of influence. A Chance Finds Procedure will be implemented during construction to protect any unexpected discoveries.

**Disturbances:** Temporary disturbances may occur during construction due to increased vehicle movements, particularly during equipment delivery and civil works. Traffic will be managed through speed restrictions, signage, trained traffic marshals, and avoidance of night-time transport where feasible. Noise levels are not expected to affect nearby settlements due to the distance between the site and residential areas.

**Leisure and tourism:** The Project area is not used for leisure or tourism activities and has no designated recreational value. No impacts on tourism or local amenity are anticipated.

**Visual impacts:** Visual impacts are expected to be limited due to the flat terrain, distance from residential areas, and the presence of existing infrastructure. The Project will not result in significant landscape alteration.

**Public health:** The Project does not create public health risks. No hazardous emissions, pollution pathways, or community exposure routes are expected during operation. Construction-related risks are temporary and will be managed through traffic safety and site control measures.

**Workers health and safety:** The EPC Contractor will prepare and implement a comprehensive Health, Safety, and Environment Management Plan (HSEMP) covering induction, PPE, electrical safety, first aid, emergency response, and site-specific hazards. War-related risks will be mitigated through decentralised accommodation, and use of certified early-warning applications. Regular monitoring and unannounced audits will be conducted by the Project Owner in line with Kernel's corporate HSE requirements. Actions to ensure proper management of Environmental and Social Risks

For the management and monitoring of identified risks and impacts, Kernel will develop an Environmental and Social Management Plan which will include key mitigation and avoidance measures. Additionally, Kernel has committed to an Environmental and Social Action Plan for the project, which includes the key commitments required to ensure

effective management of all environmental, social and safety considerations for the Project and compliance with EBRD E&S requirements as well as Ukrainian law . The key actions of this plan are:

- **Management and Compliance:** The project will appoint dedicated Environmental & Social (E&S) and Health, Safety, and Environment (HSE) resources to oversee compliance with national and EBRD standards. All necessary permits and authorizations will be obtained and maintained, with a focus on transparency and accountability.
- **Labor and Working Conditions:** The project prioritizes fair labour practices, including written employment contracts, equal opportunities, and a safe, inclusive work environment. Workers accommodation will be scattered, in order to minimize workers exposure to aerial threats due to the war context. A grievance mechanism will be established to address worker concerns, and isolated work will be minimized for safety.
- **Environmental and Biodiversity Protection:** Measures include responsible waste management, reseeded of bare soils, and a ban on herbicides. Spalax presence will be surveyed by experienced experts.
- **Community Engagement:** A Community Liaison Officer will facilitate stakeholder engagement and address community concerns through a transparent grievance mechanism.

## How Will the Project ensure Communication and Monitoring

In line with EBRD's environmental and social policy requirements, the project will ensure that relevant information is proactively shared with the host community and other stakeholders. This includes clear communication on the risks and opportunities associated with the Project, planned mitigation measures, and opportunities for feedback. A grievance mechanism is established to enable timely and effective responses to any enquiries or complaints, ensuring transparency and inclusiveness throughout the project lifecycle.

A Stakeholder Engagement Plan (SEP) was developed for the Project, and it will be publicly available, together with this Non-Technical Summary.

The SEP provides a framework for the Project stakeholder engagement and will be amended and further developed as the Project progresses with the aim of ensuring meaningful consultation with stakeholders and communities throughout the Project lifetime.

The SEP includes provisions for the Grievance Mechanism. The Grievance Mechanism will be disseminated by the Company prior to construction start and will be accessible by anyone to raise complaints and comments in relation to the Project and ensures that any complaint raised is addressed and responded. Grievances may be reported through a series of channels for the Company's consideration, including Project's subcontractors in the course of their duties as well as through the appointed Community Liaison Officer (CLO). Grievances may be identified through the following reporting channels:

- verbally to the CLO or other relevant Contractor Team members;
- verbally through the Community Grievance Mechanism (CGM) telephone hotline;
- in writing via a form on the Project website or in the dedicated boxes available in the Project's most sensitive Area of Influence (Aol) – to include details

Anonymous grievances will be accepted. To ensure facile access to the Grievance Mechanism, a number of interfaces have been established including a Grievance Form that can be used for submitting a grievance. The company will also appoint a CLO that will work as an interface between the developer and the local community.

The tools and the methods to be used for the information disclosure during Project phases will include:

- Internet/Website:
- Information Sheets including the Project Information Leaflet (to be available at website and the grievance boxes).

To get in touch with the Project team for any feedback, questions or complaints, stakeholders will be able to contact the Project Company' Community Liaison Officer via email or mobile phone. If you are interested by the project and wish to receive further information, or if you have any grievance, please liaise with the CLO:

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