



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 01/17/2023 | Report No: ESRSA02525



BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Ukraine	EUROPE AND CENTRAL ASIA	P180332	
Project Name	Restoration Project of Winterization and Energy Resources Ukraine		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	11/21/2022	1/31/2023
Borrower(s)	Implementing Agency(ies)		
Government of Ukraine	Ministry of Energy		

Proposed Development Objective

The project development objective (PDO) is to enable the restoration of essential energy services in Ukraine

Financing (in USD Million)	Amount
Total Project Cost	450.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

Yes

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The project will finance procurement of emergency equipment and spare parts necessary to restore critical energy services. Those equipment and spare parts include mobile generators, repair parts, transformers, switchgears as well as heating equipment. The project will finance only supply of goods but not civil works as energy utilities have sufficient capacity and expertise to install this kind of equipment. The project consists of three components: (i) emergency repairs for the electricity transmission infrastructure; (ii) emergency repairs for the heating infrastructure; and (iii) project management and monitoring. The project is designed as a framework project in the amount of US\$500 million with an initial funding contribution in the amount of US\$200 million.

D. Environmental and Social Overview



D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project is aimed to restore and ensure essential energy services in Ukraine through procuring urgently needed equipment in the critical energy infrastructure. The most critical equipment that needs to be procured is extra high voltage transformers, which were targeted by the recent attacks. With devastating damages on the transformers, Government of Ukraine has had to restrict electricity consumption through rolling blackouts in the entire country. With procuring and installing new transformers under the project, the transmission constraints will be eliminated and hence the frequency (numbers per day and hours per day) and the magnitude (the number of impacted customers) of blackouts will be reduced.

The geography of the project is country wide and covers deoccupied territories and territories where the active combat took place (southern, eastern and northern regions/cities of Ukraine) and thus these territories sustained the most damage to the distribution networks and district heating facilities. For transmission network (voltage levels of 750, 330, 220 and 110kV), the loss of high-voltage equipment has directly impacted on the electricity supply for the wider regions and the project will focus on the most urgent needs in all regions controlled by the Government of Ukraine.

D. 2. Borrower's Institutional Capacity

The Ministry of Energy (MoE) will act as the single implementing agency and coordinate with the Ministry for Communal Development and Infrastructure which oversees the heating services, as needed. MoE has an existing Project Implementation Unit (PIU), which was created under the ongoing WB-financed project, Second Power Transmission Project (PTP2). MoE's implementation capacity needs to be strengthened to incorporate technical, environmental, and social experts and improve their coordination capacity with donors. The Project includes a Technical Assistance (TA) component (in Component 3) to ensure knowledge building and sharing.

The Project will finance only supply of goods, UN Agency-UNOPS that will serve as procurement and deliver agent for the project, while the state-owned companies including district heating companies (DH) and Ukrenergo (UE) will finance and arrange installation of the supplied goods potentially with help from local transportation and construction companies. Thus, the MoE PIU will be responsible for the entire scope of the project and delegate ES due diligence responsibilities on-site to implementing parties (distribution system operators, district heating companies and Ukrenergo), however PIU will need to be staffed with designated E&S Risk Management Specialist to coordinate and supervise the E&S compliance across all components and provide regular reports, while UE has dedicated in house ES staff, DH will have to appoint dedicate ES staff to carry due diligence responsibilities.

UE will use the existing fully staffed PIU (including ES specialists) implementing the main investment components of the Second Power Transmission Project (PTP2) (146788) to support MoE in procurement, environmental and social safeguards. Some of district heating companies under consideration performed as local implementing agencies for ongoing Ukraine District Heating Energy Efficiency Project (DHEEP) (P132741) and thus have operational understanding for the Bank's E&S requirements under the Safeguards Policies. Both PTP2 and DHEEP are being implemented under safeguard policies and not the Environmental and Social Framework (ESF) and even though their PIU E&S staff completed ESF training over the course of past few years they don't have operational experience of applying the Environmental and Social Standards, (ESSs) thus additional capacity building for these local implementing agencies would be needed. UN Agency-UNOPS also has extensive experience with the Bank-financed project in FCV context both under old safeguards policies and ESF and will ensure ES capacity with the experienced staff assigned for the project.

Given that the Bank team is currently located remotely, the Bank will engage a third party or consultant to supervise and monitor the project's activities to verify the procured goods and equipment are delivered to the site and duly installed and commissioned for operations.



II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

Environmental Risk Rating

Substantial

Energy infrastructure (especially high-voltage substations) were explicitly targeted by Russian aerial bombardment and missile attacks to destroy the network and disrupt electricity and heat supply to communities and businesses. The treat of these attracts remain and may increase at any point, especially following repairs/rehabilitation attempts. The project finances procurement of equipment that will have to be transported, installed and commissioned by the local implementing agencies (district heating companies and Ukrenergo). The environmental risks associated with the these activities include the usual construction-related risks such as dust, noise, disturbance, repairs-related pollution (including oil spills and leaks from the transformers and relevant facilities) and waste (both construction and hazardous waste, including electrical equipment waste), operation-related pollution (fuel burning by mobile boilers), OHS risks (including electrical safety, working at heights, fire safety, emergency evacuation, exposure to PCBs) - these risks are site-specific and can be mitigated by best available practices. However, these risks may be exasperated by the war-related enhanced occupational health and safety hazards, such as potential for community and worker health and safety incidents, targeted aerial attacks on the equipment shipments and the rehabilitated facilities, Explosive Remnants of War (ERW), decontamination and demining concerns. The project is being prepared rapidly and involves implementing agency (MoE) with no experience of engaging with or implementing the requirements of WB ESF. At the same time, the supporting agencies UNOPS (procurement and delivery agent), Ukrenergo and some of district heating companies have experience with WB-financed projects, both under safeguard policies and ESF. Furthermore, safety issues undermine the Borrower’s and Bank’s ability to supervise the project activities, thus the project will have to strongly rely on developed ES instrumental base and ES capacity of implementing parties. It will be important that a trained environmental specialist is engaged for the PIU to screen, assess and manage environmental impacts associated with the equipment purchase, transportation, installation and other associated activities, as well as provide ESF-related guidance to local implementing parties.

Social Risk Rating

Substantial

At this stage of project preparation the activities under project components are not fully defined and specific locations are not known (the project is expected to be implemented country wide including recently de occupied territories). The proportionality of the environmental and social risk management activities for the project will need to be further discussed, and due diligence conducted as project advances. Given key energy infrastructure is the main target of Russian aerial bombardment over the course of past few months, the disclosure in-country of the project related information including locations is not possible at this stage and will be deferred once the situation in country allows. Social risks and impacts are mostly associated with project-related civil works (for construction, rehabilitation, and installation of infrastructure and equipment). The potential risks and adverse impacts on community health and safety are associated with civil works and installation of mobile generators (if these are in residential areas), mostly related to construction-related impacts and operation of mobile generators lack of workers’ awareness on OHS requirements, such as the use of Personal Protective Equipment (PPE) and safe workplace practices, possibility for potential land acquisition, . These risks are site-specific and temporary; however, these risks may be exacerbated by potential targeted or indiscriminate aerial bombardments and other military actions. Additional threats to workers are posed by explosive remnants of war (ERW). This adds an element of extreme uncertainty and risk of fatality or

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serious injury to project workers and nearby communities that cannot be entirely mitigated by environmental and social management measures. No risk of child and forced labour is expected as Ukraine’s national labour legislation prevents child labour for civil works.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

The project finances procurement of equipment that will have to be transported, installed and commissioned by the local implementing agencies (district heating companies and Ukrenergo).

Project design will support activities that Ukraine will need to address the ongoing emergency caused by the targeted attacks on energy infrastructures, with a scope of support that is informed by both available and future financing over the immediate and short-term. The project consists of three components: (i) emergency repairs for the electricity infrastructure; (ii) emergency repairs for the heating infrastructure; and (iii) project management and monitoring. The project will finance procurement of

autotransformers, transformers, instrument transformers, circuit breakers, disconnectors, and relay protection devices; mobile heat-only boilers, mobile mini co-generation units, pipes, fittings and valves, and pumping sets/pumps, among others, to restore critical energy services. Even though financing could be strictly for procurement of equipment, and it's envisaged that installation and repairs works would be done by the implementing agencies using their own resources, these activities would be considered Associated Facilities for the purpose of ES assessment under the WB financing and would be subject to compliance with ESF and ESSs requirements.

Repairs-related risks include potential increased pollution due to improper care, handling and storage of construction material and waste (both construction and hazardous waste, including electrical equipment waste); water/soils quality impacts in case of construction pollution (including oil spills and leaks from the transformers and relevant facilities); generation of excessive noise and dust levels from trucks and other construction machinery; soil disturbance during earth works; tree-cutting and loss of vegetation; OHS risks (including electrical safety, working at height, fire safety, emergency evacuation, exposure to PCBs); traffic safety issues; community health and safety incidents. Operational risk that was not present prior to the project include, mostly, air pollution from fuel burning for mobile boilers, as well as noise and community health and safety issues related to the operation of mobile boilers in densely populated urban environments. These risks are site-specific and can be mitigated by existing construction, operation and traffic safety management best practices.

However, these risks may be exacerbated by potential aerial bombardments and other military actions which add an element of extreme uncertainty and risk of fatality or serious injury that cannot be entirely mitigated by environmental and social management measures. Also, there is risk that project sites may become a target for aerial bombardment which will endanger nearby communities and site workers. Other war-related risks include possible site contamination with hazardous compounds and Explosive Remnants of War (ERW). ERW contamination is the most relevant hazard for transportation activities thus requiring strict adherence to approved routes and safe transportation practices. The ERW management procedure will be a part of the ESMF and subsequent POM which the implementing agencies and contractors will have to follow.



The PIU will prepare, disclose and consult upon an Environmental and Social Management Framework (ESMF) in 90 days after Effective Date and prior to start of repair/rehabilitation works (including supply of materials and equipment necessary for such works). The ESMF will include procedures, criteria, and responsibilities for subproject screening for identifying those which might require Environmental and Social Management Plan (ESMP) or simplified ESMP Checklist. The ESMF will describe potential E&S impacts and mitigation measures for common groups of activities, including preparation of additional site-specific ES management plans (such as Traffic Management Plan, Waste Management Plan, etc.), as relevant. The ESMF will provide a monitoring plan format that includes monitoring indicators, timing, methods, institutional responsibilities. The ESMF will include labor management procedures as well as a Code of Conduct addressing risk of SEA/SH incidents and a grievance process for workers with contact details for service providers. The ESMF will also provide guidance on preparation of site-specific Emergency Preparedness and Response Plans which will cover measures to protect the safety and security of project personnel and nearby communities from war-related hazards and other relevant emergencies, including ERW management procedures.

All E&S instruments will be developed in compliance with national legislation, WB ESF and ESSs, WBG General or Power Sector-Specific Environment, Health and Safety (EHS) Guidelines and other relevant guidance documents. Relevant E&S instruments (ESMPs, ESMP Checklists, Emergency Preparedness and Response Plans etc.) will be referred to in all project-related contracts for procurement of goods and services (including transportation services). The PIU will hold overall responsibility to supervise and ensure compliance of all project activities to the requirements of the ESF, ESMF, ESMPs/Checklists and other site-specific E&S instruments.

The Borrower jointly with the Bank has prepared an Environment and Social Commitment Plan (ESCP) that details the timing for the finalization of the above mentioned documents as well for preparing other ES instruments, as needed. The Stakeholder Engagement Plan (SEP) for the project has been prepared and discussed with only relevant stakeholders responsible for operationalization of each component given the sensitivity of the investment. It is not possible to hold public consultations with the broader groups of stakeholders and NGOs due to the confidentiality of the project. The Russian aerial bombardment specifically targets key energy infrastructure and disclosure of the project activities may pose additional risk for the workers and nearby communities during project implementation stage.

Retroactive financing would be applicable for Components 1, 2 and 3 subject to the compliance of the World Bank's requirements. The retroactive financing, if used, will have the only objective of expedite the delivery of components with long delivery time, that require initial payment of suppliers to initiate manufacturing, but it is expected that the delivery and installation of equipment will take place during the Project implementation and therefore, transportation, delivery and installation will be monitored following the same Project requirements. Since Component 3 will finance, among other things, the project's audits, these audits will also cover Environmental and Social (E&S) compliance checks.

ESS10 Stakeholder Engagement and Information Disclosure

The current state of martial law and military activity contexts mean that there are extremely limited engagement and consultation options. It is inadvisable to encourage large in-person meetings of local stakeholders due to risk of aerial bombardment. Additionally, some details of project designs will be considered confidential and not for disclosure to general public thus public consultation process would have to be designed in agreement with relevant national defense authorities.



The Borrower has prepared a draft SEP which provides stakeholder mapping and ensures that stakeholder engagement activities will take place once the situation in country allows. The consultations for the project took place with limited number of the stakeholders directly responsible for the project components and mainly focused on the technical aspects of the investments and ensuring the ways of receiving feedback from the ground, including Grievance Redress Mechanism (GRM) establishment and operationalization.

Given the sensitivity off the project sites and its potential exposure to specific targeted aerial bombardment of key energy infrastructure by Russia, the disclosure of the project activities to the general public in country will need to be deferred once the situation allows. Therefore, SEP will be adopted by the relevant ministries and DH/UE companies for internal use only at this stage of the project and will be further reviewed. The Borrower will disclose SEP once situation in country allows and held additional stakeholder consultations as required. Project information and guidance on options for feedback and grievance redress will be disseminated through virtual consultations, with participating organizations and local administrations.

GRM for the project will be established based on the national complaint system established at the MoE. It will undergo review to ensure compliance with the Bank’s ESS 10 standard (including ability to receive grievances related to SEA/SH) and will be reflected in the ESCP. The POM for the project will outline GRM procedures and management. E&S Specialist under MoE will be responsible for coordinating GRM handling among District Heating companies/UkrEnergo.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

The project workforce will include direct workers and contracted workers.

The Project’s ESMF will include LMP that will include codes of conduct to prevent and manage incidents of SEA/SH and will also include measures to ensure that participating businesses and cooperatives screen for and monitor activities to prevent occurrences of harmful child or forced labour. The LMP will include a grievance mechanism for direct and contracted workers. These measures will be further included in the Project Operations Manual (POM). Replacing old transformers might pose additional OHS impacts related to presence of polychlorinated biphenyls (PCBs), which are classified as Persistent Organic Pollutants (POPs) and may provoke carcinogenicity, reproductive impairment and immune system changes, if not handled properly and disposed of with care. Other risks associated with the project are accidents during demolition and construction works, traffic accidents, exposure to construction airborne agents (dust, asbestos), lack of workers’ awareness on occupational health and safety requirements such as the use of PPE and safe workplace practices. Additional threats to workers are posed by ERW and indiscriminate or targeted aerial attacks – these risks will be covered by site-specific Emergency Preparedness and Response Plans developed based on the template provided in the ESMF. These plans would include guidance on ERW management procedures.

The OHS risks and associated screening and mitigation measures will be identified in the ESMF and respective site-specific ESMPs/Checklists as required. This will include a template for site-specific Occupational Health and Safety (OHS) Plans. The project will also follow the WB COVID-19 guidance at construction sites as well as the latest COVID-19 guidance and best practices by WHO as they evolve. POM for the project consistent with ESMF will have include labor management provisions and the requirements for contractors to have industry standard Codes of Conduct,



including measures to prevent SEA/SH that will be introduced along with a process in the grievance handling system for addressing GBV related complaints.

The Government has established institutional mechanisms for the enforcement of laws and regulations on child labor. No risk of child and forced labor is expected as Ukraine’s national labor legislation prevents child labor for civil works.

ESS3 Resource Efficiency and Pollution Prevention and Management

This standard is relevant. The expected environmental risks are associated with handling and storage of construction material, waste, excessive noise and vibrations, dust emissions, and disposal of hazardous waste such as asbestos, e-waste, lubricants and oil, as well as with OHS issues. The ES instruments (project-level ESMF and subproject ESMPs/ESMP Checklists) will include a section on Pollution Prevention and Management, with a focus on those issues which might arise while conducting repairs works, installing/replacing electrical and heating equipment. The issues specified under the ESS3, including raw materials, water use and air pollution, hazardous materials, and hazardous waste will be presented in the Project ES instruments, as relevant, and further being part of bidding documents. Required building material will potentially include stones, sand, concrete blocks and timber. Borrow material will be obtained from already existing and licensed borrow pits within Ukraine and possibly close to the project area to reduce the transportation distance. It not expected that the project activities would require opening new borrow pits, as the total amount of necessary borrow materials would be low overall.

Air emissions will include emissions from mobile burners (the composition of gases will depend on the fuel used), dust, exhaust from heavy vehicles and machinery, and fugitive dust generated by civil works for repairs activities. Those most likely to be affected are construction workers, facilities’ staff, and people living in areas close to the installation sites. Mitigation measures such as air filters, dust suppression, vehicle maintenance etc., will be applied to minimize the impacts and residual impacts are expected to be limited in scope and duration.

Electrical and Electronic Equipment (EEE) contains all products and parts that run on a power or battery supply. Upon being discarded by its owner, EEE becomes e-waste, which contains both valuable and hazardous materials. For e-waste, presently, Ukrenergo follows the general procedure for the dismantled electrical equipment: operational equipment is stored and used for repairs on Ukrenergo facilities, non-operational equipment is sold for recycling (if possible) or send for utilization by licensed companies. EU Directive on Waste from Electrical and Electronic Equipment (WEEE) is a part of Ukraine’s commitments under Association Agreement but has not been implemented yet. NPC Ukrenergo is a signatory of the UN Global Compact in Ukraine and adheres to the Ten Principles of the UN Global Compact, which relate to human rights, labor, care for the environment, anti-corruption, etc. In 2020, the company’s Porcelain Waste Reprocessing Environmental Project was awarded a “Planet” at UN Global Compact “Partnership for Sustainable Development 2020” contest and company is committed to responsible consumption and waste management. ESMF will outline the requirements to adhere to EU Directive on WEEE for the management of e-waste.

Liquid and solid waste will mainly include excavated soil, oils from construction machinery, concrete blocks, metal and glass pieces from demolished equipment etc. Waste will be segregated, stored and disposed at approved sites. The collection, transportation, and disposal of hazardous wastes from the repairs activities (mainly, POPs, used oils from construction machinery and lubricants, if any) will be disposed at the designated hazardous waste disposal site. Additionally, ES instruments will specify waste management practices for hazardous waste left from the destroyed equipment (transformers, and high voltage transformers, in particular, of FSU vintage, are likely to have dioxins or other toxic materials) along with any cleanup needs. Specific arrangements for re-use or recycling of



particular types of waste as well as agreements on hand-over to secondary users must also be considered in the Project ES instruments.

ESS4 Community Health and Safety

This standard is relevant. There are significant power outages across Ukraine specifically targeting key energy infrastructure. Local communities are expected to benefit through restoration of the electricity grid and heating/water services that are all interconnected with the power supply. The potential risks and adverse impacts on community health and safety are associated with civil works and installation of mobile generators (if these are in residential areas), mostly related to construction-related impacts and operation of mobile generators, traffic safety and presence of workforce. Also, there is potential for safety incidents due to the indiscriminate or targeted aerial attacks during the delivery of repair/civil works supported by the project and associated risks and impacts. There is no anticipated large-scale movement of workers for project activities that would increase risk of SEA/SH among these groups. The ESMF would include measures to ensure that all activities would be screened and protection measures should be communicated clearly to prevent risk of SEA/SH and prohibit use of forced labour and harmful child labour. PIUs would also need to incorporate existing in-country service providers and emergency hotlines into their external communications and grievance redress processes when consultative process will resume in country. Preventative measures, including worker codes of conduct, grievance mechanisms designed to address confidential complaints and referral to specialist service providers, should also be put in place.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Potential minor land acquisitions or easements and legacy issues are not entirely fully ruled out under project components specifically with heating networks rehabilitation, therefore, a Resettlement Policy Framework (RPF) will be prepared mainly as a precautionary measure before the start of the civil works. This commitment will be reflected in the ESCP.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is not currently relevant for the project. Project activities are expected to be restricted to existing facilities footprints and/or modified/urban environment and therefore impacts on natural habitats are expected to be limited.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is not relevant. No indigenous peoples who meet the criteria described under this standard reside in the territory of Ukraine.

ESS8 Cultural Heritage

This standard is currently relevant. Damage to cultural or archaeological heritage has been extensive due to deliberate targeting by aerial bombardment, but the project activities are not known to be located in the vicinity of such assets. Activities will be screened for potential impacts on known heritage sites and practices and those having



impacts on cultural heritage will not be eligible for project financing. The Chance finds procedure will be outlined in the ESMF and will be included in the ESAs (ESMPs/ESMP Checklist) to be prepared later on.

ESS9 Financial Intermediaries

This standard is not relevant. Involvement of FIs is not envisaged by project implementation arrangements.

B.3 Other Relevant Project Risks

N/A

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework? No

Areas where “Use of Borrower Framework” is being considered:

Due to the existing discrepancies between WB ESSs and National legal framework for environmental and social assessment the Borrower’s Framework will be not used.

IV. CONTACT POINTS

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Borrower/Client/Recipient

Public Disclosure



Borrower: Government of Ukraine

Implementing Agency(ies)

Implementing Agency: Ministry of Energy

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VI. APPROVAL

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