



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Ukraine	EUROPE AND CENTRAL ASIA	P176114	
Project Name	Improving Power System Resilience for European Power Grid Integration		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	4/15/2021	5/31/2021
Borrower(s)	Implementing Agency(ies)		
Ministry of Finance of Ukraine	PJSC "Ukrhydroenergo"		

Proposed Development Objective

To enhance flexibility in the Ukrainian power grid in keeping with EU synchronization requirements and post-synchronization operations.

Financing (in USD Million)	Amount
Total Project Cost	250.00

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

No

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

The proposed Project will provide funding support needed for the installation of 197 MW of BESS and solar PV plants, which are to be operated with existing UHE HPPs through an advanced energy management system. The Project will also develop a Bank Executed TA where "Best Practices" can be developed and shared with a wider group of stakeholders including Ukrenergo, Ministry of Energy and National Energy and Utilities Regulatory Commission.

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 entails setting up utility-scale batteries alongside solar photovoltaic generator (PV) installations and energy management systems (EMS) that will allow for grid frequency regulation and rapid response capabilities – both in short supply in Ukraine, and quite necessary for bringing in a more green grid with more renewables in the generation mix.

The battery storage and PV arrays will be built at sites located within the current footprint of five UHE facilities (Kyiv, Kaniv, Kremenchuk, Srednednepreovska and Dnistrovka Hydro Power Plants (HPPs). The project sites were initially identified using satellite information, their suitability, area and terrain limitations were reviewed at the initial design stages. Provisions have been made to avoid any groundwork over the embankments of the dams and reservoirs. All sites are within the boundaries of UHE’s properties along the dam/reservoirs, and do not encroach on grown forests, main customary walkways, customary recreation areas, customary waterfront utilization areas and accesses, sidewalks, roads, power lines or other infrastructure. Thus, the project will avoid a land allocation process, construction and interconnection permits.

Exclusion corridors for overhead power lines, conforming to IEC standards, and paths that avoid crossing new HV interconnection lines and transformers with existing HV lines are also included in the proposed preliminary layouts. The solar photovoltaic (PV) arrays and battery storages areas have been dimensioned to provide enough drive-through space for heavy machinery operations both in between the rows and along the perimeter to facilitate construction and maintenance works in the future.

Kyiv PSP is located in north-central Ukraine (Vyshgorod, Kyiv region) on a hilly right bank of the Dnipro River, this is in the northern part of the Kyiv Plateau, which is part of the Dnipro Upland. There are deciduous and occasionally even coniferous trees with a height of more than three meters at the site planned for the project. This area is considered to be modified habitat. There are some private houses and gardens located near the HPP, on energy sector land.

Kaniv HPP is located in central Ukraine (Cherkasy region), in the forest-steppe of physical and geographical area, near the Dnipro River. On the south west side of the HPP some trees and shrubs are present across the site which borders with the reservoir and small garden plots to its south. The environment of the north east side of the HPP is located further away from human interference and some portions border with a forested area. Parts of this area could be described as natural habitat.

Kremenchuk HPP is located in central Ukraine (Kirovograd region), near Taburyshchansky Cape and on a bit hilly plain. There are some trees and bushes on site planned for the project which is generally bordered by dachas and the HPP reservoir. This area is considered to be modified habitat. There are some private vegetable gardens close to the divider barrage/dam.

Srednedniprovska HPP is located in central-eastern Ukraine (Dnipropetrovsk region), lies at the junction of the Ukrainian crystalline massif and the Dnipro-Donetsk basin. There are some trees and bushes on the site planned for the project. Large parts of the proposed solar PV area are located close to residential areas, however, some small parts are located close to what could be described at natural habitat.

Dnistrovka HPP is located in western Ukraine (Chernivtsi region), in the forest-steppe, on the banks of the Dnister River. The proposed installation area occupies what appears to be an old quarry which is uneven and rocky. The small territory near the site for solar panels has been subject to limited flooding in 2008. There are trees and bushes on site planned for solar panels.

There are no nationally protected areas within 1 km of the sites planned for the project. There are no cultural heritage sites within 100 m of the project sites.

D. 2. Borrower’s Institutional Capacity



The Project will be implemented by the joint-stock state-owned hydro power production company, Ukrhydroenergo (UHE). UHE has past experience working with the World Bank and other IFIs, including the World Bank’s Hydro Power Rehabilitation Project, Kaniv Hydro Power Plant Project (later dropped due to the lack of the donor coordination) under the old safeguards policies.

In its operations, the Borrower strictly adheres to the applicable environmental laws of Ukraine to ensure the ecological stability and environmental protection. The Borrower continuously improves the environmental management system to ensure its better environmental performance, regularly analyses its environmental footprint, implements numerous environmental measures, maintains environmental awareness, and acts openly with stakeholders in the field of environmental protection. At present, the Borrower is developing the environmental policy and environmental indicators that will show the status and changes in the environmental component of the sustainable development and enable the effective evaluation of our performance in this area.

Overall, the Borrower has adequate knowledge and capacity for social and environment risk management, however, limited capacity in applying the Environmental and Social Standards specifically. As this is one of the first projects in the energy sector prepared under the Bank’s new Environmental and Social Framework (ESF) in Ukraine, the Borrower’s capacity to deliver an ESF based project is limited; therefore, capacity building training for the Borrower including engaged agencies and contractors will be conducted by the Bank’s Environment and Social team during project preparation and implementation. A dedicated PMU will be established to execute the proposed Project.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Moderate

Environmental Risk Rating

Moderate

As specified above, the Project will install battery storages and PV generators arrays. These activities would have, along with some positive economic and social impacts, a series of environmental impacts and risks related to the following concrete activities: (a) civil works for installing the battery storages and PV generators arrays; (b) hauling of construction materials; (c) soil resource management and erosion control activities. Overall the project will generate the following impacts: (i) dust and noise and emission of pollutants during construction activities; (ii) solid and hazardous wastes; (iii) degradation of soil and grass vegetation and potential impacts on fauna; (iv) oil spills and leaks from the transformers and relevant facilities which may contaminate soil and water resources; (v) occupational health and safety risks; (vi) Pest Management; etc. Overall construction related impacts are likely to be short term and site specific and can be mitigated by applying internationally recognized best construction practices as well as by implementing the mitigation measures to be specified in the site-specific ESMPs. Considering the above, it is proposed to qualify project environmental risks as “Moderate”.

Social Risk Rating

Moderate

Social impacts and risks associated with the proposed Project emanate on three fronts: (i) construction related; (ii) local communities and stakeholders; and (iii) engagement with the electricity consumers country wide. The construction related and stakeholder inclusion and impacts could be identified and managed through appropriate ES measures. For the last aspect, while a tariff impact assessment will be conducted during the project appraisal, the impact is expected to be low. Based on the assessment results, additional social measures will be proposed, if

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necessary. The proposed Project’s stakeholders range from people living close to the project sites and beneficiaries/ electricity consumers in general and their interests, and their capacity to interface with the proposed project is diverse. The project does not expect issues arising from labor influx or gender-based violence (GBV) as the interventions are planned in existing sites and distant from human settlements. As far as client capacity in social risk management, the implementing agency (UHE) has prior experience in managing social risks associated with energy projects implementation. However, this is the first time this agency is going to work with the Bank financed interventions under new Environmental and Social Framework, and therefore applying the ESF standards may be a challenge.

E&S documents, to be prepared for this project, will include Labor Management Procedures (LMP) and a Stakeholder Engagement Plan (SEP); they will take into account coordination and consultation with project affected people (PAPs), workers of UHE and other stakeholders according to ESS 2 and ESS10. The project-level Grievance Redress Mechanism (GRM) will be established and operationalized throughout the project life, as part of the SEP. Based on the above, the social risk is considered to be moderate.

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:

This standard is relevant as the project will generate a series of environmental risks and impacts.

For the proposed construction of battery storages and PV generators arrays, potential environmental and social impacts will be associated with small scale civil works, including the following: construction solid wastes; noise; soil and air pollution; labor safety issues; risks of fires; pest management etc.

The sites for Project activities are known and have been preliminarily assessed by the Borrower for design considerations. To address specified environmental and social impacts the Borrower will prepare an Environmental and Social Management Plan (ESMP) to be finalized, disclosed and consulted upon, prior to project effectiveness.

The main goal of the ESMP will to define the measures, ways and mechanism for avoiding, minimizing and/or mitigating potential negative environmental and related social impacts that may occur as the result of implementation of the project. The ESMP will ensure that the identified subprojects in the course of project implementation will be correctly assessed from the environmental and social perspective to meet the WB’s Environmental and Social Standards (ESSs) as well as the country’s Environmental and Social Laws and Regulations. The ESMP will provide details under the relevant ESSs; identify risks and appropriate mitigation; define Labor Management Procedures applicable to project workers; and, assign roles and responsibilities within Implementing Agencies. The ESMP will also provide screening information for proposed project activities. The ESMP will specify rules and procedures for preparing adequate Contractor’s Environmental and Social Management Plans (C-ESMPs). Construction related social risks and impacts are limited as the project activities will be implemented within the boundaries of land plots allocated to the Borrower's energy generation facilities.

The project activities will not infringe upon the physical integrity and safety of dams. Also, under one of previous projects with the Borrower, the Ukraine Hydropower Rehabilitation Project (closed in 2016), the UHE's dam safety monitoring system was rehabilitated and upgraded. It is still operational and is maintained by the UHE and they will continue improving it through an EIB/EBRD-financed operation under implementation.

The exact requirements for the national EIA process will be determined as part of the preparation of the national feasibility documents.



It is not clear if the Project may cause adverse impact to any vulnerable and disadvantaged groups. This will be assessed during preparation and measures will be developed so that the project would not cause adverse impact to them and extent benefits to them.

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

Due to the existing discrepancies between WB ESSs and the national legal framework for Environmental and Social Assessment, the Borrower’s Framework will be not used.

ESS10 Stakeholder Engagement and Information Disclosure

The standard is relevant. Stakeholder engagement is key to the success and sustainability of the project development objectives.

Project design involves multiple stakeholders – both project affected and other interest groups. Project-affected parties include the Ministry of Finance, Ministry of Energy and Environment, National Energy Regulation Commission and other agencies involved with different project components; UkrhydroEnergo, potential PAPs and local communities.

Other interested parties include international donors supporting energy projects, civil society organizations, and NGOs interested in energy reforms in the country. In order to ensure that a consistent, comprehensive, coordinated and culturally appropriate approach is taken to stakeholder engagement and project disclosure, the Borrower will conduct a stakeholder analysis/screening prior to appraisal and prepare a draft Stakeholder Engagement Plan (SEP). The SEP will be developed and implemented with the participation of potentially affected parties to ensure that stakeholder engagement is conducted on the basis of timely, relevant, understandable and accessible information (both format and location). The SEP will identify other interested parties (OIPs), various beneficiaries and directly impacted PAPs, including disadvantaged and vulnerable groups, if any, and will include measures to ensure that the project would engage with each category of stakeholder in a meaningful way.

The project will also design a project-wide grievance redress mechanism (GRM) which will enable stakeholders to channel concerns, questions, and complaints to the Project Management Units (PMUs) and, where necessary, to other actors at the local level. The GRM will be multi-faceted so that it can receive inputs from communities and external stakeholders and it will respond to issues related to a broad range of project implementation issues. A channel for confidential reporting and redress mechanisms for Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) (although unlikely to occur) will also be included in the SEP. The GRM will define ways in which users can submit their grievances, which may include submissions in person, by phone, text message, mail, email or via a web site; will include a log where grievances are registered in writing and maintained as a database; publicly advertised procedures, setting out the length of time users can expect to wait for acknowledgement, response and resolution of their grievances, transparency about the grievance procedure, governing structure and decision makers; and an appeals process (including the national judiciary) to which unsatisfied complainants may be referred when resolution of grievance has not been achieved. The SEP will be disclosed locally and through the external website of the Bank before appraisal. A draft SEP will be disclosed earlier in the project preparation process.

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

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This standard is relevant.

The Project work force will include direct workers (UHE staff and consultants), and contracted workers (employees of civil works contractors and sub-contractors). At this stage of project design it is expected that there will be no community workers or primary suppliers involved under the project (this will be reassessed during the project design as the project might involve primary suppliers for construction materials). Within the ESMP, the Borrower will prepare the Labor Management Procedure (LMP) outlining the expected number and type of workers, include relevant measures to promote employment of female workers, explain key gaps between national legislation and regulations that need to be addressed at the project level, as well as setting out monitoring and supervision arrangements. Key aspects of the LMP pertaining to contracted workers, such as Occupational Health and Safety (OHS), SEA/SH measures, adequate working conditions, adequate living conditions in the unlikely event of work camps, a functioning grievance and redress mechanism for workers, will be included in Contractors' ESMP. Bidding documents will make explicit reference to these aspects and the works contractor, when selected, will prepare a contractor's labor management procedure (within C-ESMP) to meet the requirements of ESS2, based on the template provided in the LMP. The task team will review the borrower's internal HR procedures to ensure consistency with ESS2 requirements and propose any gap filling measures. Ukraine's legislation on labor and working conditions is relatively advanced. The Labor Code includes measures on equal opportunity and non-discrimination, regulates hiring and firing procedures, allows for collective organization and bargaining; however, it lacks the requirement to establish a worker's grievance mechanism. Such a mechanism will need to be established at project level.

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, lubricants and oil, as well as with OHS issues. The ESMP document will include a section on Pollution Prevention and Management, with a focus on those issues which might arise while conducting civil works, installing battery storages and PV generators. The issues specified under the ESS3, including pest management, raw materials, water use, air pollution, hazardous materials, and hazardous waste will be presented in the Project ESMP, as relevant, and further being part of bidding documents.

For these projects, being close to water bodies clearly prevents the eventual application of chemicals for pest management, while the most effective measures are incorporated in the standard design principles, intended to avoid the settlement and nesting of various rodents and birds by means of installing mechanical obstacles. These mitigation measures will be outlined in the Project ESMP and envisaged by the design documentation.

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. Should there be the need to open new borrow pits, the project shall ensure that all national regulations and assessments and permitting requirements are adhered to and pits reinstated as may be required through the site-specific C-ESMPs. Air emissions will include exhaust from heavy vehicles and machinery, and fugitive dust generated by civil works for rehabilitation or reconstruction activities. Those most likely to be affected are construction workers, facilities' staff, and people living in areas close to the construction sites. Mitigation



measures such as dust suppression, vehicle maintenance etc., will be applied to minimize the impacts and residual impacts are expected to be limited in scope and duration.

Noise will likely be generated from use of construction machinery and vehicle movements. The relatively short-term and small-scale nature of the works suggest that noise levels will in most cases not be excessive. Liquid and solid waste will mainly include excavated soil, oils from construction machinery etc. Waste will be segregated, stored and disposed at approved sites. The collection, transportation, and disposal of hazardous wastes from the construction activities (mainly oils from construction machinery and lubricants, if any) will be disposed at the designated hazardous waste disposal site.

Collection of exhausted of PV generators will be within the OM contracts and fulfilled by the PV generators manufacturer, this will be envisaged by design and bidding documentation. A disposal plan will be developed as part of any Contractor's ESMPs.

ESS4 Community Health and Safety

This ESS is relevant.

Project activities will be implemented within the boundaries of power generating facilities and thus will have limited impact on local community, mostly related with noise, traffic disruptions; fires; etc. To address these risks and impacts, the ESMP document will require that EES systems in locations close to residential areas will strictly follow applicable fire safety regulations. Therefore, the systems in such areas shall be fitted with adequate additional protection and risk mitigation systems. Applicable building safety arrangements, e. g. safety of wall structures, emergency exits, fire-proof walls and safety distances, emission control and containment systems, fire trucks access roads, etc. as specified in the WB and national standards, should be taken into consideration. All these risks and impacts will be assessed prior as part of Project ESMP and relevant mitigation measures included. Partition of construction area by putting in place fences, signaling, mitigation measures to control excessive noise and dust levels, and secure access to the area in the building for the workers will be ensured through a robust mitigation and management plan in the Project ESMP. Public awareness sessions, in particular related to H&S risks, will be organized in all local communities prior to beginning of works.

Labor influx and SEA/SH risks: If workers' camps need to be built, the contractor will be required to employ measures to control labor influx risks based on international good practice. Workers will be made aware of and adhere to a code of conduct.

The project would assess the existing practice of implementation agencies regarding the use of security force and, if any gaps are found, develop necessary steps in the Project ESMP to ensure material consistency with the ESS4.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is not currently relevant to the Project.

The proposed investment aims to install battery storages and PV generators arrays within the current footprint of the UHE facilities. The proposed battery storage facilities will provide ancillary services and also cater to auxiliary consumption within the HPP facility.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources



This ESS is not currently relevant to the Project.

Project activities will be conducted within UHE HPP sites which do not have known value for biodiversity preservation nor national or local protection status. One of the sites is located close to an Emerald Site which mostly aims to preserve fish and bird population along the banks of river Dniester. However, envisaged civil works should be limited in their footprint and area of influence, as well as period of implementation, will not have impact of surface waters, do not include construction of new OTLs, thus are not expected to cause negative impact on aquatic of avia fauna. Relevance of this ESS for the Project will be further reviewed during project preparation.

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

This standard is not relevant as there are not identified indigenous groups in the project area.

ESS8 Cultural Heritage

This standard is not relevant.

Project sites are known and none of them have known cultural value. As a precautionary measure, the Project ESMP will include the “chance finds” procedure for all earthmoving works.

ESS9 Financial Intermediaries

The project will not use FIs.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

No other financing partners.

B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:

1. Prior to project appraisal, preparation of Environmental and Social Commitment Plan (ESCP).
2. Prior to project appraisal, preparation of a Stakeholder Analysis/Screening and Stakeholder Engagement Plan (SEP).

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3. Prior to Project appraisal, preparation of a draft Environmental and Social Management Plan (including the Labor Management Procedure) to be finalized, disclosed and consulted upon, prior to project effectiveness.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

1. Monitoring the progress made on implementing the agreed measures for mitigating environmental and social risks.
2. Implementation of the SEP.
3. Establishment and operationalization of the Project-level GRM.
4. Preparation and implementation of Labor Management Procedures (LMPs), including a Grievance Mechanism for all Direct and Contracted Workers.
5. Finalization and disclosure of the Project ESMP.
6. Maintaining E&S institutional capacity throughout project implementation

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS

15-Feb-2021

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: Ministry of Finance of Ukraine

Implementing Agency(ies)

Implementing Agency: PJSC "Ukrhydroenergo"

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s):	Koji Nishida, Sandeep Kohli, Silvia Martinez Romero
Practice Manager (ENR/Social)	Anne Olufunke Asaolu Recommended on 25-Jan-2021 at 16:28:49 GMT-05:00
Safeguards Advisor ESSA	Agnes I. Kiss (SAESSA) Cleared on 26-Mar-2021 at 21:08:27 GMT-04:00