

**INTEGRATED SAFEGUARDS DATA SHEET  
APPRAISAL STAGE**

**Report No.: ISDSA9696**

**Date ISDS Prepared/Updated:** 26-Jun-2014

**Date ISDS Approved/Disclosed:** 26-Jun-2014

**I. BASIC INFORMATION**

**1. Basic Project Data**

<b>Country:</b>	Ukraine	<b>Project ID:</b>	P146788
<b>Project Name:</b>	Second Power Transmission Project (P146788)		
<b>Task Team Leader:</b>	Dmytro Glazkov		
<b>Estimated Appraisal Date:</b>	27-Jun-2014	<b>Estimated Board Date:</b>	30-Sep-2014
<b>Managing Unit:</b>	ECSEG	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Transmission and Distribution of Electricity (100%)		
<b>Theme(s):</b>	Infrastructure services for private sector development (70%), Regional integration (20%), Climate change (10%)		
<b>Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?</b>			No
<b>Financing (In USD Million)</b>			
Total Project Cost:	354.93	Total Bank Financing:	306.50
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
Borrower			0.00
International Bank for Reconstruction and Development			306.50
Clean Technology Fund			48.43
Total			354.93
<b>Environmental Category:</b>	B - Partial Assessment		
<b>Is this a Repeater project?</b>	No		

**2. Project Development Objective(s)**

To improve the reliability of power transmission system and support implementation of the Wholesale Electricity Market in Ukraine.

**3. Project Description**

The proposed Second Transmission Project would be implemented over five years, through an Investment Project Financing (IPF) to Ukraine in the total amount of US\$354.925 million, where IBRD will provide US\$306.50 million, supplemented with a Clean Technology Fund (CTF) Loan in the amount of US\$48.425 million.

The proposed Second Power Transmission Project consists of three components: (i) Rehabilitation of Transmission Substations; (ii) Electricity Market Enhancement; and (iii) Institutional Strengthening of MoECI.

The description and objectives of each component are summarized below.

**Component 1: Rehabilitation of Transmission Substations (US\$241.5 million IBRD).** Replacement of outdated high voltage equipment, installation of gas-insulated switchgears, and replacement of auxiliary power equipment, protective layering and substation control and automation systems in selected high voltage transmission substations.

Given that the SSs are in residential areas and it is not possible to expand their territory, the component will provide installation of GIS-330 kV (complete gas-insulated switchgears for 330 kV). In addition, the component plans to replace auxiliary power equipment, protective relaying, and SS control systems. Automation of these SSs with the installation of distributed control systems (DCS) is planned, which will allow remote control and automatic operation of transmission SSs. In the Central Power System, the proposed rehabilitation SSs include: 330 kV “Novokyyivska”; 330 kV “October”; 330 kV “Zhytomyrska”; and 330 kV “Cherkaska.” In the Northern Power System, the SSs proposed for rehabilitation include: 330 kV “Sumy” and 330 kV “Kremenchug.” All of these SSs are over 50 years old.

**Component 2: Electricity Market Enhancement (US\$110.925 million: US\$62.5 IBRD and US\$48.425 million CTF).** This component consists of four subcomponents:

**Subcomponent 2.1: Installation and connection of reactive power compensation devices for selected high voltage transmission substations.**

This subcomponent supports the implementation of the “Program for Integration of the Ukrainian Power System to ENTSO-E” by financing a requirement of the program for the installation of Variable Shunt Reactor to improve the voltage performance of the transmission network - a mandatory rule for interconnecting the Ukrainian System with the ENTSOE synchronous. The shunt reactors will be installed in the following high-voltage SSs: 330 kV “Novovolinskaya”; 220 kV “Lutsk Pivdenna”; 330 kV “Kovel”; 330 kV “Shepetivka”; and 330 kV “Kamenets-Podilska”.

**Subcomponent 2.2: Smart Grid introduction through purchase and installation of Smart Grid solutions including (a) modernization of the telecommunications network between renewable energy sources, key substations of transmission networks and system operator control centers; and (b) modernization of the regional and national system of load control centers to improve system control and dispatch including more efficient integration renewable energy into the power grid.**

**Subcomponent 2.3: Balancing market support through purchase and installation of hardware, software, metering and other related elements needed by the Project Implementing Entity for selected substations and the Project Implementing Entity.**

This subcomponent will consist of elements for Balancing Market Operator to: determine the transfer capacities that are available for cross-border trading; receive and administrate physical notifications; perform system operational scheduling; and procure and utilize ancillary services. Balancing Market settlement and planning system components require substantial metering input. Metering information is furthermore required for forecasting purposes and load profiling and will be installed at SSs.

Subcomponent 2.4: Support for institutional development of the Project Implementing Entity through (a) establishment of a corporate-wide management information system (MIS) in the Project Implementing Entity; (b) providing technical assistance to the Project Implementing Entity on procurement, financial management and project management; and (c) financing audits, Training and Incremental Operating Costs.

The investment programs will be identified and finalized in feasibility studies financed by the CTF Grant (for Smart Grid) and by the ongoing Power Transmission Project (for the Balancing Market). UE is financing the feasibility study for the MIS from its own funds. All feasibility studies are expected to have draft reports by the time of loan negotiations and to be completed soon after Board approval.

Component 3: Institutional Strengthening of MoECI (US\$2.5 million IBRD). Technical assistance to MoECI on (a) procurement, financial management and project management; (b) development of feasibility studies for future projects in the energy sector, and financing of training.

The Project Component 1 and 2.1 will be implemented at eleven substations in two Energy Systems in the following locations Khotiv village, Kyiv oblast; Kyiv; Zhytomyr; Cherkasy; Sumy; Kyiashky village, Kremenchuk, Poltava oblast; Novovolynska; Lutsk; Kovel; Shepetivka, Khmelnytsk oblast; Kamenets-Podilsky. UE has established, using their existing staff, a Project Implementation Unit (PIU), which includes a safeguards specialist assigned from environmental department. The responsibilities of PIU will include, among other responsibilities: environmental and social assessment as well as monitoring and evaluation.

The proposed Project's institutional and implementation arrangements will take advantage of existing institutional systems. The MoECI (EPCU) and UE (PIU) already have well-functioning Project Implementation Units (PIUs) staffed with technical experts/safeguards specialists, financial management specialists, and procurement specialists. The Bank will provide further training to the PIUs to strengthen their capacity if needed, including a session on safeguards.

UE will be the responsible implementing agency for Components 1 and 2. Its PIU will have fiduciary responsibility, including M&E functions related to the Project's key performance indicators. UE's PIU is well staffed and functioning properly, with Project coordinators appointed for each subcomponent and one director. The MoECI will be the responsible implementing agency for Component 3 of the proposed Project. The MoECI's PIU will have fiduciary responsibility, including monitoring and evaluation (M&E) functions related to the Project's key performance indicators. The Project Operational Manual (POM) will be developed and adopted by the time of loan effectiveness.

#### **4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The proposed transmission project will take place entirely within the footprint of the existing substations. The Project Component 1 and Component 2.1 substations are located in Khotiv village,

Kyiv oblast; Kyiv; Zhytomyr; Cherkasy; Sumy; Kyiashky village, Kremenchuk, Poltava oblast; Novovolynska; Lutsk; Kovel; Shepetivka, Khmelnytsk oblast; Kamenets-Podilsky. Environmental factors, such as presence of PCBs and other materials which may negatively affect compliance with the environmental norms and standards, where considered in prioritizing transmission facilities (substations), which will be rehabilitated under the proposed second power transmission project. Based on previous experience with similar investments, the rehabilitation / replacement works are not expected to generate any hazardous materials that will require special disposal. IT and telecommunication elements identified for subcomponents 2.2, Smart Grid, 2.3 Balancing Market and 2.4 Management Information System will all be installed at the UE substations or at the Main Office and at the Regional Power Offices located in 8 regions.

## 5. Environmental and Social Safeguards Specialists

Alexei Slenzak (ECSEN)

Klavdiya Maksymenko (ECSSO)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	The Project is classified as Environmental Category B as it will support investments which are expected to be Category B. For rehabilitation of SSs (Component 1) and introduction of reactive power compensation devices (Subcomponent 2.1), UE provided the Bank with Environmental Impact Assessments (EIAs) and Environmental Management Plan (EMP) in English; these were disclosed in the Infoshop prior to appraisal. Ukrainian language versions have been disclosed on UE's website ( <a href="http://www.ukrenergo.energy.gov.ua">http://www.ukrenergo.energy.gov.ua</a> ) and at Project sites prior to appraisal. The EIAs and EMP for SSs identified the main issues for construction and operation as: (a) during the construction phase – dust, noise, and disposal of waste and used equipment, and PCB identification and management (if found/ applicable); and (b) during the operation phase – electric/magnetic field and noise. The chief issues identified for operation were noise, electric field, and bird collisions. The EMP contains standard mitigation measures to minimize negative impacts and highlight specific measures, consistent with applicable international practices, in the event of obsolete PCB-containing equipment or soil contamination by PCBs. For Smart Grid Introduction (Subcomponent 2.2) and Balancing Market (Subcomponent 2.3), no EIA and EMP are required under OP 4.01 since these components consist of installation of IT software and hardware (Category C- type activities), however, the TORs for these activities will

		require complying with basic standards and requirements and as such, the consultants will prepare basic EIA and EMP. Component 3 will finance TA, possibly including development of feasibility studies for new energy projects. It is not anticipated that any of these new projects will be Category A. An environmental management framework (EMF) was prepared for Component 3 indicating that the Terms of Reference (ToRs) for feasibility studies need to be consistent with relevant World Bank safeguards policies. The EIA and EMP documents were disclosed by the Client on June 25 and comments were solicited from interested stakeholders, including local NGOs. June 27 was established as a deadline for comments on EIA and EMP. The EMF for Component 3 was disclosed by the Client on June 24. No formal public consultations are required for EMF document.
Natural Habitats OP/BP 4.04	No	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/ BP 4.11	No	OP 4.11 will not be triggered since no old or historic buildings/facilities will be included in the proposed project.
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	No	OP 4.12 will not be triggered since no land acquisition is expected. All sites will be located on company owned land. There are no illegal occupiers or squatters on expected project sites.
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

**1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:**

<p>There are no potential large-scale, significant or irreversible impacts. Any potential adverse environmental impacts are not expected to be significant and can be effectively prevented or minimized by application of appropriate preventive actions and/or mitigation measures. These measures are identified in the Environmental Management Plan (EMP), which has been prepared by the UE. A designated environmental safeguards specialist will monitor environmental performance of project implementation.</p> <p>The specific project sites and investments determined during preparation did not require land acquisition as works will be done within substations therefore the OP4.12 is not triggered by the project. The PIU in UE has a safeguards specialist. The UE PIU and MoECI EPCU specialists participated in the training on the Bank policies (including safeguards) and continue to receive regular training on safeguards policies during Project implementation.</p>
<p><b>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</b></p>
<p>There are no indirect and/or long-term impacts due to anticipated future activities in the project area.</p> <p>The types of activities to be implemented will have either minor or no adverse environmental impacts and provide significant environmental benefits (reductions in local pollution such as dust and sulfur dioxide emissions and/or reductions in emissions of greenhouse gases such as carbon dioxide). Negative environmental impacts are primarily associated with construction activities (e. g. dust, noise, disposal of non-hazardous waste) and they will be mitigated through good construction and housekeeping practices.</p>
<p><b>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</b></p>
<p>N/A</p>
<p><b>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.</b></p>
<p>The Bank has supported Ukraine in its efforts to rehabilitate and restructure its energy sector through policy dialogue, TA, and financing since the early 1990s. Substantial institutional capacity to implement the Bank's safeguard policies has been developed, particularly by beneficiaries of the first Power Transmission Project, including UE, the beneficiary of the proposed Project. UE has adopted ISO 14001, so environmental management is an important element of its institutional development agenda. The company is currently performing ISO 14001 internal audits at all eight of its Energy Systems and plans to go through an ISO 14001 Surveillance Audit to confirm its Environmental Management System in August 2014. At present, each Energy System has several experts with environmental backgrounds who report to the Chief Engineer of the respective region. In addition, there is a Chief Environmental Department in UE's office in Kyiv, consisting of three experts who collect data from each Energy System and carry out supervision of EMP implementation. In summary, the institutional capacity to implement the requirements of the EMPs already exists to a large measure within the Borrowers' organizational structure.</p>
<p><b>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</b></p>
<p>Key project stakeholders are electricity market participants, renewable energy generating facilities/entities, and general customers of the electricity.</p> <p>The EIA and EMP documents were disclosed by the Client on June 25 and comments were solicited from interested stakeholders, including local NGOs. June 27 was established as a</p>

deadline for comments on EIA and EMP. Also, the Client sent written requests for formal comments to local NGOs and representatives of local authorities (e.g. environmental and/or local interest groups, etc.). The documented evidence of disclosure and communication regarding feedback on EIA and EMP documents has been provided by the Client and is on project file.

The EMF for Component 3 was disclosed by the Client on June 24. No formal public consultations are required for EMF document.

UE Approach to consultations is based on their ISO14001 system procedures and entails that In every city/village where the Project will be working public information meeting on the project will be held with prior announcement in the local press and by posting information on the theme, time and place of the consultation in the publicly attended places as office of the UE or Substation, local authorities' office, web-site of the Central or Northern Energy Systems where Substations are located. The information on the project with EIA and EMP has been placed on the websites of Ukrenergo. In every place the public consultation will start with a presentation by UE on the current state of affairs and the project main activities and expected results as related to the locality. The minutes of the public consultations for every locality will contain copies of announcements, presentations made, summary of comments received and list of participants. Summaries of the public consultations will be disclosed in the same way as invitation to participate in public consultations. Specific support will be provided to UE and Central or Northern Energy Systems to update web-sites to proactively share the information.

### ***B. Disclosure Requirements***

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	20-Jun-2014
Date of submission to InfoShop	26-Jun-2014
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
<b>"In country" Disclosure</b>	
Ukraine	25-Jun-2014
<p><i>Comments:</i> The EIA and EMP documents were disclosed by the Client in English on June 24, 2014 and in Ukrainian on June 25, and comments were solicited from interested stakeholders, including local NGOs. June 27, 2014 was established as a deadline for comments on EIA and EMP. Also, the Client sent written requests for formal comments to local NGOs and representatives of local authorities (e.g. environmental and/or local interest groups, etc.). The documented evidence of disclosure and communication regarding feedback on EIA and EMP documents has been provided by the Client and is on project file.</p> <p>The EMF for Component 3 was disclosed by the Client on June 24 in both languages (English and Ukrainian) and comments were solicited from interested stakeholders. No formal public consultations are required for EMF document.</p>	
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>	
<b>If in-country disclosure of any of the above documents is not expected, please explain why:</b>	

### C. Compliance Monitoring Indicators at the Corporate Level

<b>OP/BP/GP 4.01 - Environment Assessment</b>	
Does the project require a stand-alone EA (including EMP) report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>The World Bank Policy on Disclosure of Information</b>	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>All Safeguard Policies</b>	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

### III. APPROVALS

Task Team Leader:	Name: Dmytro Glazkov	
<b>Approved By</b>		
Sector Manager:	Name: Ranjit J. Lamech (SM)	Date: 26-Jun-2014