

**INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE**

Report No.: ISDSA1112

Date ISDS Prepared/Updated: 31-Jan-2015

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I. BASIC INFORMATION

1. Basic Project Data

Country:	Armenia	Project ID:	P146199
Project Name:	Electricity Transmission Network Improvement Project (P146199)		
Task Team Leader(s):	Artur Kochnakyan		
Estimated Appraisal Date:	26-Jan-2015	Estimated Board Date:	30-Mar-2015
Managing Unit:	GEEDR	Lending Instrument:	Investment Project Financing
Sector(s):	Transmission and Distribution of Electricity (100%)		
Theme(s):	Infrastructure services for private sector development (80%), Other urban development (20%)		
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?			No
Financing (In USD Million)			
Total Project Cost:	69.16	Total Bank Financing:	52.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			17.16
International Bank for Reconstruction and Development			52.00
Total			69.16
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

2. Project Development Objective(s)

The proposed project development objectives (PDO) are to improve the reliability of the power transmission network and system management, and support the Government efforts in ensuring adequate electricity supply

3. Project Description

The project will have three components:

Component 1: Strengthening of the power transmission network. This component will finance:

Sub-component 1.1: Rehabilitation of Ashnak substation of High Voltage Electric Networks (HVEN). This sub-component will help reducing the number of equipment failures caused by technical reasons, and, thus, improve the reliability of power transmission network. This 220/110/10 kV substation is essential for ensuring reliable power supply to consumers in Eastern and North-Eastern parts of Armenia, including a large dairy products company, an asphalt plant, and a diamond polishing and jewelry production factory, which employ around 3,500 people.

This sub-component will finance replacement of all key plant and equipment in the substation, including, but not limited to: complete rehabilitation of 220 kV OSY and 110 kV OSY; replacement of main transformers; complete rehabilitation of 10 kV cubicles and the associated building; installation of the Supervisory Control and Data Acquisition System (SCADA) and replacement of protection relays, replacement of house transformers; and construction of a new building for control rooms. HVEN will implement this sub-component.

Sub-component 1.2: Rehabilitation of YTPC's substation. This sub-component will help reducing the incidence of equipment failures at 220/110/35 kV YTPC substation. The substation is used for evacuation of electricity from the modern and efficient CCGT plant with 240 MW of installed capacity. The existing CCGT plant at YTPC accounts for 20 percent of the total annual electricity generation in the country. Therefore, it is essential for ensuring adequate and low-cost electricity supply to all of the 1,040,000 electricity consumers in the country.

This sub-component will finance replacement of all key plant and equipment in the substation, including, but not limited to: rehabilitation and expansion of 220 kV Open Switchyard (OSY) and rehabilitation of 110 kV OSY; installation of new main transformers; installation of SCADA and replacement of protection relays; construction of a new building for control rooms in OSY; reconnection of disconnected OTLs required for evacuation of power from YTPC. YTPC will implement this sub-component

Sub-component 1.3: Project implementation support to HVEN. This will include support in technical supervision of rehabilitation works at Ashnak substation.

Sub-component 1.4: Project implementation support to YTPC. This will include support in technical supervision and safeguards compliance of rehabilitation works at YTPC substation.

Component 2: Improvement of the power system management. This component will finance:

Sub-component 2.1: Establishment of a back-up dispatch center. Establishment of a back-up dispatch center will allow improving the management of the power system. Specifically, it is important for ensuring continuous management and control of the power system in case the primary dispatch center (located in down-town Yerevan) fails due to technical or other reasons. In 2012-2014, the primary dispatch power system was down an average of 22 minutes per year.

The back-up dispatch center will allow to immediately restoring the control and management of the power system in case of such failure. If the operation and management of the system is not restored,

then it may jeopardize reliability of power system operation, which may cause electricity supply outages. The proposed back-up dispatch center will be located in an existing building owned by the MENR.

This sub-component will finance renovation of the interior space, procurement and installation of the mimic board, primary and back-up servers, fiber-optic connection with the nearest Haghtanak substation, and other civil works and equipment required for a back-up dispatch center. HVEN will implement this sub-component.

Sub-component 2.2: Construction of a new administrative building for HVEN. Construction of a new administrative building will enable HVEN to improve the efficiency of its operations because current administrative building has a very limited space with an average office area of 5 square meters per person (no overstaffing at HVEN) and limited space for transmission system control and management systems. This results in overcrowded offices and low productivity, which impacts the efficiency of operations.

The construction of administrative building will be done on an existing land plot belonging to HVEN nearby the existing administrative building. It will include construction of 3-4 story building to provide enough space for staff, equipment, and other functions. HVEN will implement this sub-component. Specifically, HVEN will finance from its own funds preparation of the design, bills of quantities, and bidding documents for the works. The loan proceeds will be used to finance only the construction works and purchase of office equipment and accessories.

Component 3: Preparation of a new electricity generation project. This component will finance:

Sub-component 3.1: Preparation of a new CCGT project. The power system will need around 500 MW of new gas-fired generation capacity to preclude the emergence of a supply capacity gap by 2020. The new CCGT is part of the Government's least-cost power supply plan until 2030. The Government plans to construct the new CCGT with private sector involvement, which will require a number of preparatory activities for which no financing is available.

This sub-component will include support for preparation of a bankable feasibility study, environmental and social impact assessment, transaction advisory and other technical assistance required for preparation of a new CCGT project. YTPC will implement this sub-component.

Sub-component 3.2: Project audit. This will include financing of project audits. HVEN will be responsible for the selection of the auditor. Consolidation of the project annual financial statements to be audited will be made by HVEN based on inputs provided by YTPC.

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

(a) YTPC substation: The substation is located on the territory of the YTPC and the territory of the substation is fenced. The substation is accessible from the road which passes nearby the YTPC. The land around the substation carries no vegetation. There is limited agricultural activity to the East of the substation.

(b) Ashnak substation: The substation is located nearby the city of Talin in the Aragatsotn marz (region) and is critical for ensuring reliable power supply to customers in Western and North-Western parts of Armenia. The territory of the substation is fenced. It is accessible by a main road,

which passes nearby the facility. The vehicles can enter the substation using the small road specifically constructed for accessing the substation from the main road. The land around the substation is used for agricultural activities.

(c) Back-up dispatch center of Electric Power System Operator. The main part of the premises to be provided for the back-up center is on the second floor of an existing building in the city of Yerevan. An additional small structure will be constructed adjacent to the existing building within the territory around it which is fenced and has an access road from a free-way.

(d) Administrative building of HVEN: The new building will be located near the existing headquarters of HVEN in the city of Yerevan. The land plot for the potential new building is already owned by HVEN and is fenced across the circumference.

5. Environmental and Social Safeguards Specialists

Darejan Kapanadze (GENDR)

Jennifer Shkabatur (GSURR)

Sarah G. Michael (GSURR)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project is not expected to have significant irreversible impact on the natural environment, because proposed works will be undertaken within the footprint of the existing infrastructure. The main risk associated with the rehabilitation of power substations is related to the generation of hazardous waste. Environmental Management Plans (EMPs) developed for works at the substations provide detailed instructions for on-site storage of acid batteries and used oils as well as recommendations for safe recycling of oils should HVEN and YTPC opt to treat and sell them for re-use. Construction of an administrative building for HVEN and arrangement of premises for a back-up dispatch center of EPSO will have negligible negative impacts on the natural and social environment, and Checklist EMPs were prepared for those works.
Natural Habitats OP/BP 4.04	No	The two substations, which will be rehabilitated as part of the project, and the sites allocated for the construction of the back-up dispatch center and the administrative building of HVEN are not located in areas of natural habitats.
Forests OP/BP 4.36	No	The two substations, which will be rehabilitated as part of the project, and the sites allocated for the construction of the back-up dispatch center and the administrative building of HVEN are not located in or nearby any forested areas.
Pest Management OP 4.09	No	Pesticides will not be applied for vegetation control

		in substations or any other purpose related to the construction or operation phases of the project.
Physical Cultural Resources OP/BP 4.11	No	Works to be undertaken will have no impact on any known historic/cultural monument.
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/ BP 4.12	No	OP 4.12 is not triggered as the rehabilitation of the Ashnak and YTPC substations is expected to take place within the existing fenced footprint of the current substations. No land acquisition or resettlement is expected. Access roads to the substations are in a good condition and will not require repairs and there will be no need to use any land in the vicinity of the substations.
Safety of Dams OP/BP 4.37	No	Project implementation does not include any works on dams and no part of the project-supported infrastructure depends in its operation on any existing dam.
Projects on International Waterways OP/BP 7.50	No	The project activities will not use and not influence, in any manner, any national or international surface waters and groundwater resources.
Projects in Disputed Areas OP/ BP 7.60	No	

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

<p>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> <p>The project is not expected to have significant irreversible impact on the natural environment and is therefore classified as environmental Category B. All proposed works will be undertaken within the footprint of the existing infrastructure. Rehabilitation of substations may result in generation of hazardous waste, such as replaced acid batteries and used transformer oils potentially containing PCBs. Waste disposal is a generally challenging task in Armenia due to lack of adequate infrastructure and effective control mechanisms. Some types of hazardous waste, including replaced acid batteries and transformer oils, are being put in storage until the Government finds acceptable and affordable solutions for their permanent disposal. Site-specific Environmental Management Plans (EMPs) developed for works at the beneficiary substations provide detailed information on the conditions of the allocated on-site storage facilities and lay out instructions for safe storage.</p> <p>Small scale civil works for the arrangement of premises for the back-up dispatch center of EPSO and construction of an administrative building for HVEN will be undertaken within fenced plots belonging to beneficiary institutions which urban setting, with minimal likelihood of any environmental and social impacts that will be addressed by adhering to simplified checklist EMPs prepared for these works and by applying general good construction practice.</p> <p>2. Describe any potential indirect and/or long term impacts due to anticipated future activities</p>
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in the project area:
<p>The social impact of this project is positive as it will improve the reliability of electricity supply in the country, enhance power system management, and support the Government efforts in ensuring adequate electricity supply. The project will create benefits for all energy consumers in the country, including vulnerable and impoverished households. Temporary positive impacts will also include economic benefits through the employment of local people during construction work. It should be noted that improvement of electricity supply reliability will be especially beneficial for people who spend most of their time at home such as the elderly, children and women as well as those who have the primary responsibility for cooking and cleaning, typically women.</p>
<p>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</p>
<p>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.</p>
<p>HVEN developed EMPs for works planned at the Ashank substation, YTPC substation, administrative building of HVEN and establishment of back-up dispatch center. The project will be implemented by HVEN (works at the Ashnak substation) and by YTPC (works at the YTPC substation). HVEN is an implementing agency for the ongoing Electricity Supply Reliability Project (ESRP), under which it will receive capacity-building on managing environmental and social aspects of its activities. HVEN uses consultant services for day-to-day supervision of safeguards under ESRP, and will use services of a hired safeguards specialist for the purposes of ETNIP. TOR for the consultant was shared with the Bank. YTPC has not been previously involved in implementation of Bank-supported projects and has no in-house capacity to manage application of safeguard policies. Administration of YTPC will be obligated to hire and maintain an environmental consultant of with the background and skills adequate for ensuring good environmental performance during works at the substation.</p>
<p>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</p>
<p>HVEN, administrations of individual power substations, and all electricity consumers in Armenia supplied with substations targeted under ETNIP are key beneficiaries and stakeholders of the project.</p> <p>The project will support widespread stakeholder information-sharing and consultation. The project activities and potential risks will be communicated in a transparent manner. The project will promote gender-sensitive consultation mechanisms at all stages. A grievance redress mechanism will also be in place to support citizen engagement with the project. This GRM will be operated by HVEN for both substations and allow project affected people and other interested stakeholders to submit all types of complaints, suggestions, or questions related to the project.</p> <p>All EMPs drafted during the project preparation were disclosed in Armenian and English languages through sending hard copies to communities and posting on the web-site of HVEN and MENR. EMPs for the rehabilitation of power substations and for construction of the back-up dispatch center and administrative building of HVEN were open for the feedback from potentially affected communities by advertising locations for accessing hard copies of these documents and contact information for submitting questions and comments. Finalized versions of all safeguard documents were re-disclosed on January 30, 2015 along with documentation on public consultation process.</p>

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	30-Jan-2015
Date of submission to InfoShop	31-Jan-2015
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	////
"In country" Disclosure	
Armenia	30-Jan-2015
<i>Comments:</i> EMP were disclosed on the web-site of the HVEN and hard copies made available for communities in the vicinity of individual project sites.	
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.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
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 Practice Manager (PM) 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"/>]
The World Bank Policy on Disclosure of Information	
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"/>]
All Safeguard Policies	
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(s):	Name: Artur Kochnakyan	
<i>Approved By</i>		
Regional Safeguards Advisor:	Name: Agnes I. Kiss (RSA)	Date: 02-Feb-2015
Practice Manager/ Manager:	Name: Ranjit J. Lamech (PMGR)	Date: 02-Feb-2015