

# Environmental Monitoring Report

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Bi-annual Report (CJSC Electro Power Systems Operator)  
Covering the period of January – June 2015

## ARM: Power Transmission and Rehabilitation Project

Project Number: 46416-002  
ADB Loan/Grant Number: L3150-ARM  
Prepared: July 2015

Prepared by the Closed Joint Stock Company Electro Power Systems Operator (EPSO) for the Republic of Armenia and the Asian Development Bank.

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## **Part I Introduction**

The Government of Armenia has received financing from the Asian Development Bank (ADB) in the form of loan toward the cost of Power Transmission Rehabilitation Project (the Project). The Project objective is to enhance power system operation efficiency and reliability, in order to ensure a reliable and efficient power supply as well as the energy exchange with the neighboring countries.

The Project consists of the following components Expansion and Upgrade of SCADA (Supervisory Control and Data Acquisition) system and EMS (Energy Management System). The components include a partial upgrade of the SCADA System hardware as well as their extension in various substations and within the National Load Dispatch Center (LDC), in order to cater for enhanced performance and to provide prerequisites for implantation of enhanced functionality. The SCADA System software will be upgraded to the latest release of Network Manager Software Package in order to meet state-of-the-art EMS functionality and Inter-Control-Center Communication capability based on international standard communication protocols. Some minor rearrangement and refurbishment of the Control Center Facilities such as visualization devices and anti -glare lighting at the Control Room are included as well. The project completion is expected in May 2018.

On 5 September 2014 project Loan Agreement was signed between Republic of Armenia (Borrower) and Asian Development Bank in the amount 13.600.000 USD. Co-financing part (taxes and duties) is the responsibility of Electro Power Systems Operator Closed Joint Stock Company (EPSO CJSC).

The project classified as environmental “B” category.

The Project will be implemented by EPSO CJSC who will be Project Executing Agency, according to the Loan Agreement.

The Project Implementation Unit (PIU) in EPSO will manage the project on behalf of EPSO.

## **Part II Environmental Monitoring**

No environmental monitoring program is developed and implemented during the reporting period. No on-site monitoring was needed since no construction activities were implemented during the reporting period.

The monitoring program will be developed with the construction contractor as a part of contractor’s SEMP prior to the start of construction activities. Monitoring plan will be approved by PIU and Supervision consultant.

The Program is subject to amendments and updates upon the need during the implementation of the Project.

In November 2014 ADB's senior environmental specialist (Tran T. Thanh Phuong) together with ADB's national environmental consultant (A. Yedigaryan) made an annual audit visit and she has provided mission note with recommendations regarding project. All these suggestion has been taken into consideration and included in the tender documentation.

After Annual audit PIU representative participated in the wrap-up meeting in ADB where ADB's senior environmental specialist introduced all projects shortcomings and non-conformances as well as the suggested ways for their solving.

### **Part III Environmental Management**

During the feasibility study phase Initial Environmental Examination Report has been prepared by Fichtner company (Fichtner company selected by ADB for preparation of Bidding Documents). The final IEE has been approved by ADB in May 2014. In this phase there were also implemented public notice and public hearings.

Between EPSO CJSC and JV Lahmeyer International GMBH and CESI S.p.A in association with Ameria CJSC has been signed Consultant's Services Contract on 6 May 2015. Consultant's Company has following staff which consist from international and national key expert:

- Project Manager / SCADA Expert (international)
- Telecommunication Engineer (international)
- Transmission Line Engineer (international)
- Procurement Specialist (international)
- Electrical Engineer 1 (national)
- Electrical Engineer 2 (national)
- Environmental Safeguard Specialist (national)

Consultant Firm is in the process of review Final Biding Documents.

Based on the IEE, as well as on its studies, the general contractor, after the election, will develop the Environmental Management Plan.

### **Part IV – Action Plan for the Next Period**

In September 2015 it is planned to organize a tender for the selection of the Contractor. It is expected that the Contract with EPSO CJSC and Contractor will be signed in February 2016. After that Contractor will start preparation of the required environmental documents.

Based on the developed Environmental Management Plan the selected Contractor must establish an action plan for every 6 months which will be approved by PIU and consultant.