

# Environmental Monitoring Report

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Bi-annual Report (CJSC High Voltage Electric Networks)  
Covering the period of July – December 2015

## ARM: Power Transmission and Rehabilitation Project

Project Number: 46416-002  
ADB Loan/Grant Number: L3150-ARM  
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Prepared by the Closed Joint Stock Company High Voltage Electric Networks (HVEN), with the assistance of CONSECOARD LLC, for the Republic of Armenia and the Asian Development Bank (ADB).

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## Table of Contents

|          |   |   |
|----------|---|---|
| Part I   | Introduction.....                       | 1 |
| Part II  | Environmental Monitoring .....          | 1 |
| Part III | Environmental Management.....           | 2 |
| Part IV  | – Action Plan for the Next Period ..... | 3 |

### PART I INTRODUCTION

Power Transmission Rehabilitation project will increase the efficiency of power system operation and reduce transmission losses, which are essential to improve operational energy security and reduce emissions of greenhouse gases. Rehabilitation of existing substations will improve the reliability and quality of power supply to urban and rural consumers, alleviating regional disparities within Armenia and supporting inclusive and sustainable economic development. In addition, an efficient and reliable power system will facilitate expanding cross-border power trade in the region.

The Project covers the following components: **Rehabilitation and Extension of four High-Voltage (HV) Grid Substations**. This component covers the substations Agarak 2, Shinuhayr, Yeghegnadzor and Ararat 2. Agarak 2 and Shinuhayr substations (Lot 1) will be financed by ADB.

The rehabilitation of the substations includes the installation of new autotransformers (only in Agarak 2), replacement of obsolete voltage transformers, surge arrestors, circuit breakers, disconnectors, post insulators, steel gantries, towers (supports) and foundations, control & monitoring equipment, protection equipment, batteries and other secondary systems. The rehabilitation of “Agarak 2”, “Shinuhayr” substations will be from end-2015 to end-2018.

On 5 September 2014 project Loan Agreement was signed between Republic of Armenia (Borrower) and Asian Development Bank in the amount 23.400.000 USD. Co-financing part (taxes and duties) is the responsibility of HVEN.

The project classified as environmental “B” category.

The Project will be implemented by High Voltage Electric Networks Closed Joint Stock Company (HVEN CJSC) who will be Project Executing Agency, according to the Loan Agreement.

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

### PART II ENVIRONMENTAL MONITORING

No environmental monitoring program is developed and implemented during the reporting period. Also 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 update upon the need during the implementation of the Project.

In October 2015 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. The most important ones are the followings:

1. The Mission requested that until PSMC and PIU's environment staff are mobilized the PIU's Environment consultant will ensure Construction Contractor's tender documents include the approved EMP and a safeguard manager position.
2. PIU is in the process of establishment of GRM. Logbooks will be kept in each sub-station.
3. When PIU and consultant's environmental staff will be on board ADB's National environmental consultant will provide trainings on ADB's and national legislation safeguard requirements. With assistance of the ADB's consultant, PIU and PSMC will determine the need and appropriate steps for PCB-oil test of the equipment which was tested during the IEE stage

All these suggestion has been taken into consideration and will be included in the tender documentation.

After Annual audit "Consecoard" LLC 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**

The PIU has been established within Correct Investment Department. PIU is going to hire environmental specialist in the I quarter of 2016. Taking into account this fact, the contract with CONSECOARD LLC hasn't been prolonged.

During the feasibility study phase, Fichtner company (selected by ADB for technical assistance) has conducted studies and an Initial Environmental Examination (IEE) report has been prepared. The final IEE has been approved by ADB in May 2014. In this phase there were also implemented public notice and public hearings.

At that point the construction contractor and supervision consultant have not been selected and physical works have not started yet. The environmental team of Supervision consultant and Construction Contractor haven't been made up.

Based on the IEE, as well as on its studies, the general contractor, after the election, will develop the Environmental Management Plan. Along with the general contractor it is expected to select the supervision consultant, in charge of monitoring activities, including environmental

issues. Therefore, in the terms of the tender, it is required to have an environmental expert or a group.

#### **PART IV – ACTION PLAN FOR THE NEXT PERIOD**

The project feasibility study, technical specifications and bidding documents for the works contracts have already been prepared in accordance with the respective ADB procurement policies and guidelines.

As it was mentioned, in the coming months it is planned to organize a tender for the selection of the general contractor and supervision consultant.

It is expected that the General Contractor will be selected in the I quarter of 2016 and will be mobilized in the first 6 months of 2016. In that period it is envisaged that Contractor will start preparation of the required environmental documents.

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