

Bi-annual Environmental Monitoring Report

Bi-annual Report (High Voltage Electric Networks CJSC)
Covering the period of January – June 2020

ARM: Power Transmission and Rehabilitation Project

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
CEMP	Contractor's Environmental Management Plan
CJSC	Closed Joint Stock Company
EMP	Environmental Management Plan
GoA	Government of Armenia
GRM	Grievance Redress Mechanism
HVEN	High Voltage Electric Networks
IEE	Initial Environmental Examination
IES	International Environmental Specialist
LEEEC	Liaoning- EFACEC Electrical Equipment Co., LTD
ME	Ministry of Environment
MTAI	Ministry of Territorial Administration and Infrastructure
MENR	Ministry of Energy and Natural Resources
NEIE	Northeast China International Electric Power Corporation
NGO	Non Governmental Organization
PIU	Project Implementation Unit
PSMC	Project Supervision and Management Consultant
RA	Republic of Armenia
SSEMP	Site-Specific Environmental Management Plan

PART I - INTRODUCTION

The transmission infrastructure of Armenia was primarily built in the Soviet era. Roughly 70% of the installed equipment at power generation plants has been in operation for more than 30 years, and 50% for more than 40 years. The average age of power transmission assets including substations is 45 years and, distribution assets 32 years. Much of the existing transmission infrastructure has reached the end of its useful life and requires major rehabilitation or replacement to continue reliable operation. Also nearly 90% of 220-kV overhead lines require rehabilitation, and about 42% of low-voltage substations are in deficient technical condition.

The Asian Development Bank (ADB), assists Armenia in improving the utilization of its energy resources. Subsequently, on September 5 2014, the Loan Agreement of the Power Transmission Rehabilitation project (PTR) was signed between the Republic of Armenia (Borrower) and Asian Development Bank and the High Voltage Electric Networks CJSC was appointed as the Implementing Agency.

PTR will increase the efficiency of power system operation and reduce transmission losses, which are essential for improving operational energy security and reducing 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. The project will help to upgrade the national power system operation reliability and efficiency and enhance the transmission capacity.

The project includes three main components: i) expansion of supervision control and data acquisition (SCADA) system, ii) rehabilitation of four existing 220/110kV substations and iii) capacity building and project management. HVENs portion of the projects covers Rehabilitation and Extension of four High-Voltage (HV) Grid Substations. At the beginning this included substations Agarak 2, Shinuhayr, Yeghegnadzor and Ararat 2. But at the end it was decided that only Agarak 2 (ANNEX A) and Shinuhayr (ANNEX B) substations will be rehabilitated.

Rehabilitation of the selected substations includes 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. At the beginning it was planned that the period for rehabilitation of “Agarak 2” and “Shinuhayr” substations will be from 2016 up to end-2018, but during the implementation of project the period was extended but the general contractor could not perform its liabilities under the contract and suddenly left the country without any notification to the Employer and this is the reason why the implementation of the project by the General Contractor and its subcontractors for “Agarak” substation rehabilitation has stopped since 10.04.2019 and for “Shinuhayr” substation: since 08.01.2019 .

The Construction Contractor of the project was Liaoning-EFACEC Electrical Equipment Co., LTD (LEEEEC) & Northeast China International Electric Power Corporation (NEIE) JV and the supervision consultant company is the CESI S.p.A.

Now a tender invitation documents for General Contractor are under development, and further engagement of a consultant within this project is under discussion.

According to ADBs Environmental Safeguard Categories¹ the project is classified as category "B". This indicates that any potential adverse environmental impacts of the project are site-specific, few if any of them are irreversible, and mitigation measures can be designed more readily than for category A projects which are more likely to have adverse environmental impacts.

1.1 CONSTRUCTION ACTIVITIES AND PROJECT PROGRESS DURING REPORTING PERIOD

In the framework of the project, reconstruction works of "Agarak-2" substation started in February 2017 and Contractor's Environmental Management Plan (CEMP) of reconstructed site was approved on February 09, 2017. The CEMP of reconstruction site of "Shinuhay" substation is approved by HVEN CJSC in January 2017 and the start of reconstruction works was in June 2017.

No works have been implemented during the reporting period because the General Contractor left the Project Country and now a new tender is announced and selection of a new General Contractor is under process. Soon the works will again start.

1.2 ENVIRONMENTAL SAFEGUARDS STAFFING

The Ministry of Territorial Administration and Infrastructure (MTAI)² as the executing agency and High Voltage Electric Networks (HVEN) Closed Joint-Stock Company (CJSC) as the project implementing agency are responsible for the implementation of the project. As agreed jointly between the borrower and ADB, and in accordance with the Government and ADB's policies and procedures, HVEN is responsible for the implementation of substations rehabilitation component of the project.

In general, HVEN CJSC carries out day-to-day management of project execution and monitoring of relevant project activities. This includes periodic review, preparation of review reports identifying issues and action plans and their timely submission to ADB. HVENs team includes an Environmental Safeguard Specialist Mrs. Rayisa Babayan and Social Safeguard Specialist Mr. Armen Grigoryan and who oversee all environmental and social aspects of the project and are responsible for preparation of project monitoring reports.

¹ See ADB's website for more elaboration on ADB's safeguard categories, available at: <https://www.adb.org/site/safeguards/safeguard-categories>

² Formerly it is called "Ministry of Energy and Natural Resources (MENR)"

On 06.05.2016 HVEN employed one turnkey contractor to perform final design, procurement, installation, and testing and commissioning of concerned equipment at existing substations of Agarak 2, and Shinuhayr and on 10.04.2019 the contract between turnkey contractor and Employer was terminated.

On 20.11.2015 HVEN recruited a Project Supervision and Management Consultant (PSMC) who provided Technical Assistance to the PIU in the management and reporting of the project until 26.10.2018, because the Consultants Contract validity date expired on 26.10.2018. After that there was no Consultant engaged in the Project Implementation.

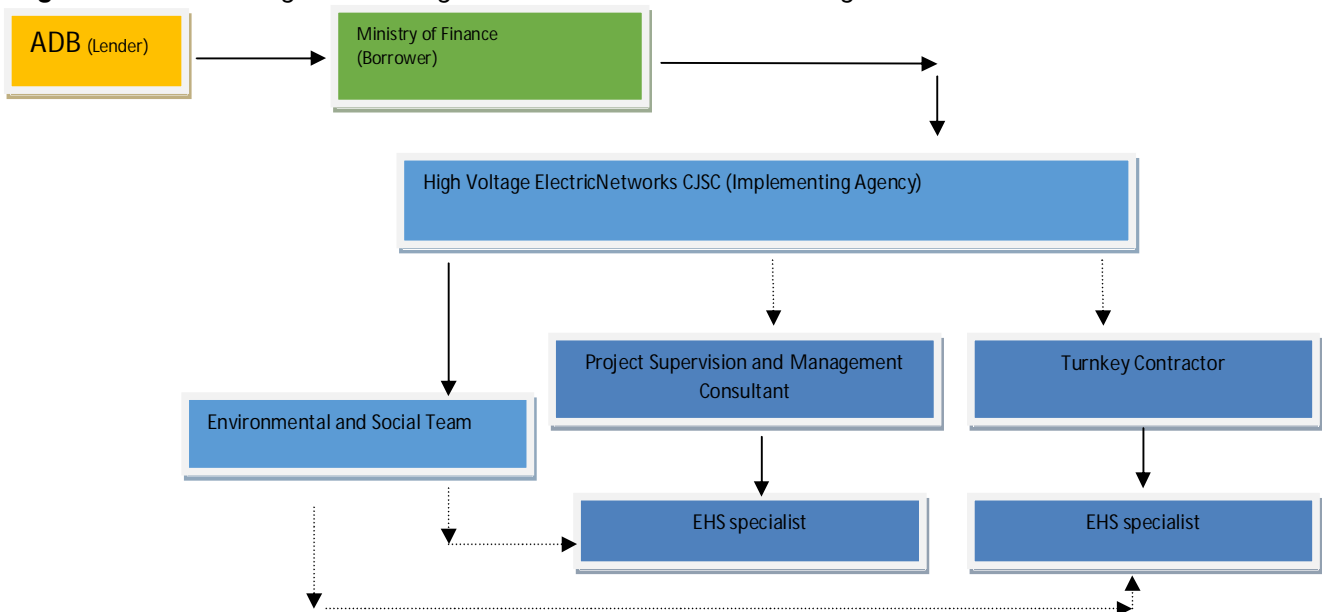
1.3 PROJECT ORGANIZATION AND HVEN TEAM

HVENs Environmental and social activities are implemented by HVENs Environmental and Social Safeguards Specialists (ESSSs). ESSSs are responsible for overseeing the work of new contractor in safeguards compliance. ESSSs shall review MPR reports and oversee the implementation of CEMPs developed by new Contractor and training and capacity-building activities.

ESSSs prepare bi-annual environmental and social monitoring reports and submit to ADB.

Mrs. Rayisa Babayan and Mr. Armen Grigoryan oversee the compliance of the project with ADB's Environmental Policy and RA Legislation.

Figure 1: Structure Diagram of the Agencies Involved in Investment Program



PART II - ENVIRONMENTAL MANAGEMENT

2. COMPLIANCE WITH NATIONAL SAFEGUARDS

To comply with Armenia's national safeguard system and legislation, new Contractor shall obtain new necessary permits and licenses for construction activities accordingly for both construction and for dumping site

New Contractor shall ensure that all necessary communications with local (communities) and territorial administrative authorities comply with Armenian legislation before construction works restart

2.1 COMPLIANCE WITH ADB SAFEGUARDS

In order to safeguard the environmental and social performance of the project, implementation of construction activities shall be supervised to ensure their compliance with CEMP requirements, which CEMP shall be updated by new Contractor based on the existing EMP and IEE in accordance with ongoing situation/implementation stage, ADB Environmental Policy, as well as RA legislation.

As PTR is a category "B" project, ADB conducts review missions once a year to check compliance of project activities with ADB SPS requirements. The project is also monitored by ADBs National Environmental Safeguards Consultant (NESC).

During the site visit, meetings with the Heads of Agarak Tatev communities (Shinuhayr village) shall also be envisaged on a need based basis. These meetings will have an informative nature and be aimed to inform the heads of the communities about the works conducted and expected to be carried out in "Agarak-2" and "Shinuhayr" substations, elaborating on possible environmental and social impact and mitigation measures.

2.2 CONTRACTOR'S COMPLIANCE WITH THE CEMP

New Contractor shall be guided by the IEE and EMP for the project as a part of the Bid and Contract documents. New Contractor's Environmental Management Plan shall be updated by the latter before commencement of works and shall elaborate on site environmental and social management requirements implementation, particularly construction impacts mitigation, monitoring and reporting requirements in order to ensure environmental and social performance. Compliance with CEMP shall be regularly monitored and reported.

During the reporting period there were no construction works..

2.3 ADB MISSION

As there were no works in the reporting period, ADB did not conduct any monitoring visit.

2.4 TRAININGS AND AWARENESS RAISING ORIENTATION

New Contractor's Environmental Safeguard specialist shall present to new contractor's team the environmental management plan, environmental requirements, possible negative impacts during construction works, mitigation measures and Grievance redress mechanism in the construction site.

2.5 GRIEVANCE REDRESS MECHANISM

For receiving feedbacks, concerns and complaints from the APs, a Grievance Redress Mechanism (GRM), shall be established based on the ADB's guidelines and policies maintained for the duration of the Project. The Grievance Redress Mechanism is intended to assist affected persons in lodging their complaints and to describe the mechanism designed to redress their grievances in a timely and effective manner. The parties to be potentially involved in the GRM are the new Contractor, Consultant, HVEN and NGOs.

PART III - ENVIRONMENTAL MONITORING

For the PTR of "Agarak-2" and "Shinuhayr" 220/110kV substations the monitoring program shall include:

- Regular monitoring, site visits on to check compliance of construction activities in the Agarak-2 and Shinuhayr substations to the EMP requirements
- Unscheduled inspection visits when needed
- Completion of the monitoring checklist and summary of compliances and non-compliances
- Issue the non-compliance notices to the Contractor
- Review of the Contractor's monthly monitoring reports.

Environmental Monthly Reports shall be elaborated upon:

- The status of the construction works and the recorded progress,
- Staff preparedness, mobilization, training and awareness,
- Regular monitoring visits,
- Received complaints,
- Security/safety and accidents report,
- Waste,
- Other environmental and social issues.

During sites visits generally new Contractor Environmental Safeguard Specialist (CESS) shall present the environmental and social requirements of the project, possible negative impacts during construction works, mitigation measures and Grievance redress mechanism in the construction site. Also the responsible individuals involved in the construction works shall be instructed by the CESS to:

1. Strictly observe the safety rules;
2. Follow the fuel and lubricants transporting, charging and storage rules in order to exclude the leakage into the environment. In particular, the foreman was instructed to provide the respective area and ensure lay of sand with the precondition to change and refresh it regularly.
3. Carry out regular dust removal works.
4. Register any possible social issue or complaint arised by the staff members and inhabitants of adjacent areas and inform about it the Contractor's environmental specialist immediately.

5. Register any accident and amount of waste generated during the construction works.

During the reporting period, no works have been implemented and consequently no complaints were received and no accidents were registered on the construction sites, no site visit was implemented by HVEN Environmental and Social Safeguards Specialists.

PART IV - ACTION PLAN FOR THE NEXT PERIOD

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

Action plan for the reporting period from June to December 2020³

N	Action	Time frame	Responsible
1.	Evaluation site visits and assistance to the Contractor in the development of Waste Management Plans and management plans for dump sites in Agarak-2 and Shinuhayr substation, as well as other routine working documents.	Upon Contractor's request	HVEN/PSMC
2.	Preparation, review and approval of Site-specific Environmental Management Plans for waste and dump sites	Upon the need	HVEN/PSMC/ Contractor
3.	Consultancy provided to Contractor's environmental team on ADB Safeguard Policy Statement and Armenian Environmental legislation	Upon the need	HVEN/PSMC
4.	Monitor the Contractor's construction works in Agarak-2 and Shinuhayr substations to ensure the compliance with IEE, EMP and CEMP requirements	Upon the restart of works	HVEN/PSMC
5.	Review and approve the Contractor's Monthly progress reports	Upon the restart of works	HVEN/PSMC
6.	Other routine issues like unscheduled site visits, follow up of the detected defects, environmental assessment of re-designs, review and approval of Contractor's documents, etc	Upon the need	HVEN/PSMC
7.	Reporting on environmental safeguards	Bi-annual	HVEN

³ The Action Plan will be finalized with the new Contractor.

ANNEX A: LAYOUT OF THE PROJECT CONSTRUCTION AREA OF AGARAK-2



ANNEX B: LAYOUT OF SHINUHAYR PROJECT CONSTRUCTION AREA



ANNEX C: LOCATIONS OF THE SUBSTATIONS SHINUHAYR AND AGARAK-2



