

Bi-annual Environmental Monitoring Report

Bi-annual Report (High Voltage Electric Networks CJSC)
Covering the period of July – December 2019

ARM: Power Transmission and Rehabilitation Project

Project Number: 46416-002
ADB Loan/Grant Number: L3150-ARM
Prepared: January 2019

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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
LEEEEC	Liaoning- EFACEC Electrical Equipment Co., LTD
MNP	Ministry of Nature Protection
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 contract and suddenly left the country without any notification to the Employer and this is the reason why the implementation of project stopped

The Construction Contractor of the project are 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.

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 "Shinuhayr" 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 Energy and Natural Resources (MENR)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 Government and ADB's policies and procedures, HVEN is responsible for the implementation of substation rehabilitation components of the project.

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 a 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 Nowadays it is called "Ministry of Territorial Administration and Infrastructure"

HVEN employs one turnkey contractor to perform final design, procurement, installation, and testing and commissioning of concerned equipment at existing substations of Agarak 2, and Shinuhayr. The Contractor’s Environmental Safeguard specialist Mrs. Irina Yesayan was responsible for implementation of the EMP, as well as for preparation and implementation of CEMP and SEMP, monitoring of construction activities and reporting.

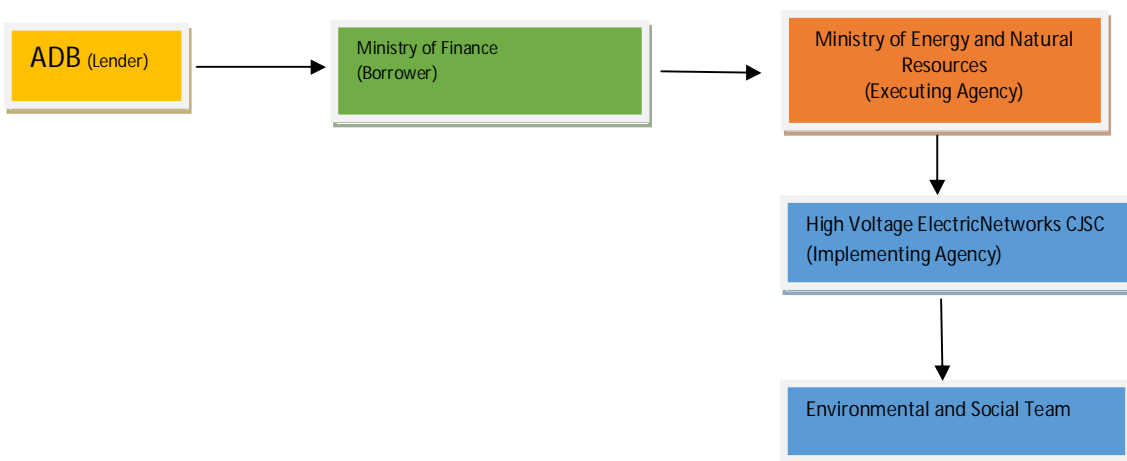
HVEN recruited a Project Supervision and Management Consultant (PSMC) who is providing Technical Assistance to the PIU in the management and reporting of the project. At the beginning of the Project an International Environmental Safeguard Specialist Mrs. Nicoleeta Cremonesi was employed by the Project Supervision and Management Consultant to ensure the smooth implementation of CEMPs, to monitor the implementation of mitigation measures. She worked within the Project until May 19, 2017 and was responsible for the provision of consultation for international best practices on environmental safeguards. Currently, the position of the IES is vacant.

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 the contractor and PSMC in safeguards compliance. ESSSs review MPR reports and oversee the implementation of EMPs 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, the Contractor obtained necessary permits and licenses for construction activities accordingly for both construction and for dumping site. These permits are presented in ANNEXES D and E.

The Contractor ensures that all necessary communications with local (communities) and territorial administrative authorities comply with Armenian legislation during construction works and obtained permits.

2.1 COMPLIANCE WITH ADB SAFEGUARDS

In order to safeguard the environmental and social performance of the project, the implementation of construction activities were supervised to ensure their compliance with EMP requirements. The EMP is prepared in accordance with ADB Environmental Policy and 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 Consultant (NEC).

During the site visit, meetings with the Heads of Agarak Tatev communities (Shinuhayr village) are also 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

The Contractor is guided by the IEE and EMP for the project as a part of the Bid and Contract documents. The Contractor's Environmental Management Plan is prepared by the contractor and elaborates 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 is being regularly monitored and reported.

The final version of Contractor's Environmental Management Plans for Agarak-2 and Shinuhayr substations were prepared by the Contractor and approved by the PIU and PSMC,

accordingly February 15, 2017 and February 20, 2017. During the reporting period there were no construction works, so there was no need to review and adjust the CEMP.

2.3 ADB MISSION

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

2.4 TRAININGS AND AWARENESS RAISING ORIENTATION

The Contractor's Environmental specialist presented to the 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.

During the reporting period there were no Personnel awareness raising sessions held regarding health, safety, emergencies and environmental topics.

2.5 GRIEVANCE REDRESS MECHANISM

For receiving feedbacks, concerns and complaints from the APs, a Grievance Redress Mechanism (GRM), has been 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 potentially involved in the GRM are the Contractor, Consultant, HVEN and NGOs.

The following are the procedural steps to file a complaint or pose an inquiry on matters relating to project implementation, environmental concerns and other issues regarding the Project.

Step 1: The person affected by the Project could raise their suggestions/concerns/complaints first of all to the Contractor's dedicated grievance staff then an attempt will be made to resolve complaints at the local level. In order to maintain transparency and accountability to affected communities and to make information, assistance and grievance resolution services accessible to the Affected Persons, the Contractor will establish the following GRM as a part of the Project's integral GRM:

- ✓ AP's could approach Contractor's representative (construction foreman, engineer, social or environmental specialist) on-site and/or register their suggestion /complain into the grievance register book kept by Contractor at the field office/substation.
- ✓ Contractor ensures the provision of contact information (field office location, operating hours, names of responsible contact persons, phone numbers, regular email addresses, etc.) via posters and Project informational boards.

Step 2: Should the Consultant fail to satisfy the complain, AP could apply to PIU. All the contact information shall be provided by Contractor on posters and on the Project informational

board. Contractor shall provide the necessary explanations and assistance in application to the mentioned entities, if needed through the personal contact with AP.

Finally, the AP can always seek attention and interference of NGOs and the court. However, all the efforts will be made to settle the issues at the Contractor's, the Consultant and PIU level. If not possible, attempts will be made to resolve the issues at the EA level to avoid/minimize litigation as much as possible.

All complaints regardless of the outcome and solutions will be properly documented and made available for review, monitoring and evaluation purposes. the Contractor provided the Complaints Register book to impacted community which is kept at the construction site.

No complaints were registered during the reporting period.

PART III - ENVIRONMENTAL MONITORING

For the PTR «Rehabilitation of «Agarak-2» and «Shinuhayr» 220/110kV substations» the monitoring program includes:

- 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 elaborate 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 CES 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 CES 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.

Morover, an agreement was reached between HVENs environmental specialist and team of contractor to elaborate on a progress plan, which should include public awareness meeting schedule, as well as a systematic training plan for organization of the training for contractor staff on environmental issues and requirements.

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 Specialilsts.

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 July to December 2019

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

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



ANNEX D: CONSTRUCTION PERMIT

ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ
Վարչական կառավարման համակարգի
Շինարարության թուղթատու հաստի
№ 5 «05» սեպտեմբերի 2016 թ.

Տրված է կառուցապատող **«ԼԻԱՄՆԻԼԳ ԷՖԱՍԵԿ ԷԼԵԿՏՐՈԿՎԱԼ ԲՈՒԽՊՄԵՆՍ» ՍՊԸ**-ին
 (Իրավաբանական անձի անվանումը, կազմակերպության անվանումը համարը)

Վայրագրման կապակցում **N 036122_9.07.1997թ./**

Փիլիճակն անձի անունը, ազգանունը, հասցեն, հղանամը գրեցվելու վայրում

«Ագարակ 2» ՀՊԸ ԵՐԱՐԱՄԱՆ
 (Շինարարական կառուցման անվանումը, կառուցմանը, հանգիստ բնակարանի)

Հրահարման պահանջների պահանջները սահմանափակում և սահմանափակումները
 1) Օրբյակի նախագծային փաստաթղթերով
 2) Առաջել է (են) **20** թ. N _____ փորձագիտակա
 (Եթե փորձագիտական անունը)

«ՀՀ ԱԳԱՐԱԿ 2» ՊՏԱԿԱՆ ԱՐՏԱԳՐԱՏԵԾԱԿԱՆ ՓՈՐՁԱԲԱՆ
 (Այլ փորձագիտական մարմին (մարմիններ) անվանումը (ներգրավել համարը))
 Ի հոգեմեծ N 11582, N 6576, N 6577, N 6578, N 6579

Կամ
 Նախագիծը բողոքարկող պատասխանատու կապակցությամբ
 (Եթե մարմինների անվանումները և հասցեները նախագիծում)

ANNEX E: DUMP SITE PERMIT

ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ՍՏՈՒԽՈՒ ՄԱՐԶ
ԱԳԱՐԱԿ ՀԱՄԱԵՐԻ ՂԵԿԱԿԱՐ

ՈՐՈՇՈՒՄ
12 օգոստոսի 2016 թվականի N150-Ա

«ԼԻԱՄՆԻԼԳ ԷՖԱՍԵԿ ԷԼԵԿՏՐՈԿՎԱԼ ԲՈՒԽՊՄԵՆՍ» ՍՊԸ-ԻՆ ԵՐԱՐԱՄԱՆ ԵՎ ԽՈՇՈՐ ԵԶՐԱԶՍՓԻ ԱՂԲԻ ՀԱՎԱԲԱՆ ԵՎ ՓՈԽԱՂՄԱՆ ԹՈՒՅԼՏՎՈՒԹՅՈՒՆ ՏՆՈՒ ՄԱՍԻՆ

Ղեկավարվելով «Տեղական ինքնակառավարման մասին» Հայաստանի Հանրապետության օրենքի 17-րդ հոդվածով, 37-րդ հոդվածի 12-րդ կետով, «Աղբահանության և սանիտարական մաքրման մասին» Հայաստանի Հանրապետության օրենքի 8-րդ հոդվածի 5-րդ կետով, «Տեղական պորտքերի և վճարների մասին» Հայաստանի Հանրապետության օրենքի 8-րդ հոդվածի ն) կետով, հիմք ընդունելով Ագարակ համայնքի ավագանու 11 ղեկընթացի 2015 թվականի N49-Ն որոշումը և «ԼԻԱՄՆԻԼԳ ԷՖԱՍԵԿ ԷԼԵԿՏՐՈԿՎԱԼ ԲՈՒԽՊՄԵՆՍ» ՍՊԸ-ի ծրագրի ղեկավարի տեղակալ Կարեն Խոտոյանի՝ համայնքի ղեկավարին ուղղված 2016թ. օգոստոսի 11-ի N384/1 գրույթումը՝

ՈՐՈՇՈՒՄ ԵՍ

1. Թողարկել «ԼԻԱՄՆԻԼԳ ԷՖԱՍԵԿ ԷԼԵԿՏՐՈԿՎԱԼ ԲՈՒԽՊՄԵՆՍ» ՍՊԸ-ին «ԲԵՑ» ՓԲԸ-ի «Ագարակ-2» ենթակայանում ընթացող շինարարական աշխատանքներից առաջացած շինարարական և խոշոր եզրաչափի աղբը հավաքել և փոխադրել Ագարակ-Նովա 90 հասցեում գրեվող կոմունալ ենթակառուցվածքների տարածք:
 2. Առաջարկել «ԼԻԱՄՆԻԼԳ ԷՖԱՍԵԿ ԷԼԵԿՏՐՈԿՎԱԼ ԲՈՒԽՊՄԵՆՍ» ՍՊԸ-ին շինարարական և խոշոր եզրաչափի աղբի հավաքման և փոխադրման թույլտվության համար կապարել վճարում հիմք ընդունելով Ագարակ համայնքի ավագանու 11 ղեկընթացի 2015 թվականի N49-Ն որոշմամբ հաստատված գինը՝ 1մ³ աղբի համար 500 դրամ:

ՀԱՄԱՅՆՔԻ ՂԵԿԱԿԱՐ / ԱԳԱՐԱԿ

2016թ. օգոստոսի 12
 Բ. Ագարակ