

Environmental Monitoring Report

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

ARM: Power Transmission and Rehabilitation Project

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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 present Environmental Management (EM) Report summarizes the project Environmental, Health & Safety status of project supervision 6 months (July-December 2015) by EPSO CJSC.

In accordance with the task assignments, background information, sources, publicly available documents and reports prepared by SCADA and various Armenian and International agencies identified. The identified documents, prepared in the time period from 2013 to 2014, provide EH&S policy and analysis, Initial Environmental Examination (IEE) Report and Environmental Management Plans (EMPs), Bidding Documents (prepared by the former Consultant "Fichtner"), Technical forms etc. for project components. The existing studies and forms/documents were made for following two components: a) Rehabilitation of the Substations and b) Replacement of the Ground wires.

Only (b) Replacement of the existing ground wire by an Optical Ground Wire (OPGW) considered for this stage of the project and the above mentioned studies/forms (IEE, EMPs, Bidding Documents) updated/reviewed accordingly.

A quick overview of the collected documentation identifies that the quality of Environmental, Health & Safety (EH&S) data and analysis mostly coherent and further comprehensive information gathering and analysis is required for only limited aspects:

The main accomplishment was review and adding project specific EMP and EH&S forms to the Bidding Documents as integral part in line with ADB Guidelines.

Details, fact findings and further project execution/action plan has been discussed and agreed during the kick-off and quarterly meetings.

Part II - Environmental Management and Document Review

During the reporting period (July-December 2016) wide variety of background documents, including project description, technical specification, bidding forms etc. were provided to the consultant. In accordance with the task assignments all available documents and reports prepared by SCADA and various Armenian and international agencies have been analyzed. The Initial Environmental Examination Report, Environmental Management Plans and Bidding documents updated/reviewed and minor changes and forms relevant with national (EPSO, HVEN) and international requirements (ADB) proposed and agreed with PIU for (b) Replacement of the existing ground wire by an Optical Ground Wire (OPGW) project component.

Review and adding project specific EMP to the Bidding Documents as integral part in line with ADB Guidelines done. The following adding and updates have been done and approved for final Bidding documents submittal to PIU:

- Environmental, Health & Safety performance subsection with minimum required criteria's of EH&S compliance, added in Section 3 (Evaluation and Qualification Criteria) of Bidding Document
- Environmental, Health & Safety safeguard specialist with minimum 5 years' experience required/added as key personal of Construction Contractor.
- Health, Safety and Environment Program Certification form to be signed and submitted and Health, Safety & Environment (HSE) Contractor Performance Questionnaire form added in the Section 4 (Bidding Forms) of the Bidding Documents, in order to evaluate Contractor HSE past performance and capacity for the project/task completion according to the ADB Requirements.
- National Laws and Regulations for Environment Management subsection added in Section 8 (Special condition of Contract) in order to ensure compliance with all applicable national and local environmental laws and regulations.
- Initial Environmental Examination (IEE) report and updated Environmental Management Plan (EMP) for Replacement of Ground Wires added as appendixes to the Section 8 (Special condition of Contract) as key guidelines of HSE performance.
- Health, Safety and Environment Program Certification form to be signed and submitted for the contract signing added to the section 9 (Contract forms) in order to ensure contractor HSE responsibilities and performance during the project implementation phase.

Based on the IEE, EMP and HSE documents and forms reviewed/added by Supervision HSE consultant and approved by PIU to the Bidding Documents, as well as on its own studies to be done during the initial survey phase of the project implementation, the general contractor, after the election, will develop Site specific EMP (Environmental Management Plan) and develop the HSE Monitoring Plan under the supervision of PIU and Project Supervision Company.

Part III - Environmental Monitoring

No environmental monitoring program is developed and implemented during the reporting period. On 27 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. PIU's Technical specialist is responsible for environmental issues. ADB's National environmental consultant will provide assistance and trainings on ADB's and national legislation safeguard requirements especially regarding SSEMP preparation.
2. Existing power towers and line passes through Arevik national park. Project will be implemented in the existing right of way, so there will be no need for environmental expertise. The Contractor will be responsible for conducting cadastral survey and design. The Mission requested that SSEMP will be prepared by the contractor in close consultation with the national park management.

EPSO PIU leading engineer participated in Regional Workshop on Regional Exchange on Good Practice of Environmental Safeguards Management in Kirgiz Republic 3-7 August 2015

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 (Joint Venture of Lahmeyer International GmbH and CESI S.P.A. in association with Ameria CJSC).

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

Part IV Action Plan for the Next Period

In accordance with the task assignments of first half year (January – June, 2016) period it is planned to:

- On 2 February 2016 will be bid opening
- Expected that The Contract with Contractor will be signed on 3rd quarter 2016.
- Supervise and report the progress of implementation of the EMP to ADB, including Project compliance with (a) all applicable laws and regulations of Armenia relating to environment, health and safety; (b) the Environmental Safeguards; (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventive actions set forth in a safeguards monitoring report,
- Assist Contractor with capacity building on environmental safeguard, Based on the updated Environmental Management Plan;
- Assist Contractor that any adverse environmental impacts are minimized by implementation of the mitigating measures and monitoring program as detailed in the reviewed environmental management plan (EMP);
- Report any violation of environmental standards and the measures taken to restore compliance to ADB;
- Review and approve HSE action plan(s) of the selected Contractor established for 6 months project implementation.