

## Project Summary Information (PSI)

Project No: 000032

Project Name	280 MW Nenskra Hydropower Plant
Country	Georgia
Sector	Energy Power Generation, Renewable Energy, Hydropower
Project No	000032
Sponsor	Korea Water Resources Corporation
Borrower	JSC Nenskra Hydro
Environmental and Social Category	Category A
Date of PSI prepared or updated	Mar. 19, 2019
Estimated Date of Board Consideration	Q1 2020
Concept Decision	Approved on Apr. 17, 2017
Final Review	Approved on Dec. 19, 2017

### I. Introduction

Georgia possesses vast hydro resources that are well-suited for hydropower generation, which is the least cost source of electricity in the region. Georgia has around 300 rivers in terms of economically viable hydropower potential but these remain largely untapped today.

Georgia's dependence on hydropower means that the reliability of power supply is threatened in the winter months when demand is high but existing reservoir levels and river flows are low. Much of the power shortage is met by domestic thermal generation using imported natural gas or by importing power from neighboring countries.

### II. Project Objectives and Expected Results

The Project has been developed as part of Georgia's Energy Strategy to increase the country's energy security by investing in renewable energy. The objective of the Project is to (i) increase the country's power generation capacity year-round, (ii) reduce dependency on fossil fuel-fired power plants and thus decrease their associated pollution; and (iii) reduce imports of electricity from neighboring countries. The Project is designed to store water during the summer so that energy production can be continued at a sustained pace during the winter months, when it is expected to generate an additional 259 GWh, representing approximately 50% of current electricity imports. It is also estimated that the Project will emit 477,500 tons of CO<sub>2</sub>-eq less per year compared to alternative generation sources for the same energy production.

### III. Project Description

The Project involves the development, construction and operation of a greenfield hydropower plant (280 MW) located in the upper reach of the Nenskra River in the mountainous Svaneti Region, in the northwestern part of Georgia.

The Project will construct a dam to impound the Nenskra River in a reservoir, a weir on the Nakra River to divert the water to the Nenskra Reservoir, tunnels (headrace tunnel and transfer tunnel) and a powerhouse.

Upon completion, the Project will produce electricity throughout the year, with average annual production of 1,219 GWh, to be sold to JSC Electricity System Commercial Operator under a Power Purchase Agreement for a 36-year period. After 36 years of operation, the facilities will be transferred to the Government of Georgia under a bilateral Build-Operate-Transfer arrangement.

#### **IV. Environmental and Social**

The Bank has decided to use the EBRD's 2014 Environmental and Social Policy (ESP) and Performance Requirements (PRs), since (i) they are consistent with the Bank's Articles of Agreement and materially consistent with the provisions of the Bank's Environmental and Social Policy; and (ii) the monitoring procedures that the EBRD has in place to ascertain compliance with its policies are appropriate for the Project. Under the EBRD's ESP, the Project has been assigned Category A, since the proposed hydropower scheme includes the construction of a large dam and the Project comprises a large and complex greenfield development, with a number of significant environmental and social risks and impacts. The Project construction will also require several associated facilities such as roads, quarries, a 220-kV transmission line and a 110-kV transmission line.

In accordance with EBRD's ESP and PRs for a Category A project, a formal and participatory Environmental and Social Impact Assessment (ESIA) has been prepared by the Borrower. The Lenders' group of environmental and social staff, including from the Bank, have undertaken several site visits and observed public consultations in the Project area and Tbilisi. The environmental and social documentation on the Project has been disclosed on the website of the Borrower, as follows: <http://nenskra.ge/en/reports/>

Given the complexity of the Project, an international, interdisciplinary panel of experts (IPoE) was convened to provide additional oversight of and transparency in Project design and implementation arrangements. The IPoE has issued several reports on issues such as dam safety and stakeholder engagement, and these have been disclosed alongside the ESIA.

Pertinent issues are summarised below; extensive information on these topics is presented in the ESIA:

- *Community safety, natural hazards* – The area in which the Project is to be located is mountainous and natural hazards exist. The dam construction method, location, and foundation design have all been revised and adapted to mitigate the risks of natural hazards affecting dam integrity.
- *Physical resettlement* – The physical resettlement of local populations has been avoided in entirety through design changes. While significant land take (882 hectares) is still required, the minimisation of resettlement-related impacts is an example of a positive outcome of the ESIA process. In total, 89 households are affected by either permanent or temporary land acquisition.
- *Indigenous Peoples* – Some NGOs/CSOs strongly believe that Svans meet the defined criteria of Indigenous People as stipulated by EBRD's ESP and thus should be treated as such for the purposes of the Project's analysis. The ESIA provides a detailed analysis of the identity of the Svans vis-a-vis Lender policies, which confirms that PR7 (Indigenous Peoples) is not applicable.
- *Protected areas* – The Project area was within a proposed protected area (candidate Emerald site), The boundaries of this and other proposed candidate Emerald sites were later refined by the GoG, which resulted in the Project area being outside, but adjacent to, the current proposed protected area. The Borrower, however, adopted a precautionary approach; biodiversity assessments were undertaken in accordance with the EU Habitat Directive and EBRD PR6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources) and were integrated into the supplementary ESIA studies.

A Grievance Redress Mechanism (GRM) has been established for the Project with one office in Chuberi (Nenskra Valley) and one in Naki (Nakra Valley). In addition, concerns and complaints can also be lodged at the Project headquarters in Tbilisi or on the Borrower's website. The GRM offices in Chuberi and Naki also serve as the platform for registering for employment and advertisement of job opportunities by the Borrower.

The route selection for the 220-kV transmission line to evacuate the electricity generated is not known yet and is the responsibility of the GoG. The EBRD is facilitating development of the ESIA for this transmission line project, which will be presented to EBRD's Board in 2018. The route for the 110-kV transmission line to provide power for the Nenskra dam construction is also not known as yet, but the Borrower is responsible for preparation of all the necessary documentation to ensure compliance with the requirements of the GoG and the Lenders.

All elements of the Project will be closely monitored by the Lenders and the independent consultants. This includes the full-time presence of the independent consultants on-site and routine visits by the Lenders.

## **V. Estimated Project Cost and Financing Source**

The Project cost is estimated to be US\$1,083 million and will be financed through 30% equity and 70% senior loans. The Bank is contemplating provision of a senior loan of US\$100 million. The Project will be co-financed by ADB, EBRD, EIB and KDB for up to US\$758 million, with the balance covered by equity.

## **VI. Implementation Arrangements**

The Project will be constructed under an Engineering, Procurement and Construction (EPC) turnkey contract by a contractor that would be selected through a process using international competitive bidding. The total construction period is 51 months.

The Sponsor will conduct operation and maintenance of the Project through a wholly owned subsidiary (to be established) and provide technical services to the Borrower.

### Contact Points

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