

Environmental and Social Data Sheet

Overview

Project Name: KPONG Dam Retrofit
Project Number: 2018-0417
Country: Republic of Ghana
Project Description: The project comprises the rehabilitation and upgrade of the electromechanical equipment and systems of the 160MW Hydropower Plant on the Volta River.

EIA required: no

Project included in Carbon Footprint Exercise¹: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The operation comprises the rehabilitation and upgrade of the electromechanical equipment in the existing 160 Megawatt (MW) KPong Hydropower Plant (the HPP), a run-of-river plant on the Volta River, 80km from Accra. In particular, the retrofit includes the supply and installation of new components and the refurbishment of turbines, generators, gates, electrical power systems and automation, aiming at extending the service life of the plant by 25 years. The overall retrofit works on the HPP commenced in 2013, but their completion has been significantly delayed, mainly due to the extended scope of rehabilitation. The works for rehabilitation of Unit 4, which will be financed by the Bank, are expected to commence in Q2 2019.

The environmental and social appraisal conducted by the Bank, was supported by a Lender's Engineer. The retrofit will not change operational parameters of the HPP, and it solely includes the replacement of components with new components within the existing boundaries of the plant. Therefore, an Environmental and Social Impact Assessment (ESIA) is not required. The environmental impact is expected to be minor, temporary (for the period of the execution of the works) and limited to the plant itself and the immediate surroundings. Typically, the impact would concern increased levels of traffic, noise and potentially some dust during the execution of the works.

During the operational phase, no environmental impact is expected to derive from the refurbishment, as this is limited to electromechanical equipment installation within the existing

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

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boundaries of the plan. The retrofit works do not trigger changes within the existing water regime of Volta River.

EIB Carbon Footprint Exercise

Estimated emissions savings are 534 tonnes of CO2 equivalent per year based on generation figure of 1,100 GWh per annum. It is assumed that 50% of generated electricity is replacing power generation in existing fossil fuel-based power plants and 50% of generated electricity is replacing power generation in new power plants. For Ghana the latter means CCGT power plants.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

No cultural heritage and no settlements were identified by the Lender's Engineer in close proximity to the HPP, nor being impacted by the project. The retrofit works do not envisage any additional land take.

A comprehensive emergency procedures preparedness plan, including inundation maps, has been prepared for the HPP and is updated on an annual basis.

The Environmental and Social Management Plan (ESMP) is in place for the project as updated in 2017. Since this is a retrofit project, the risks are mostly related to the health & safety area, as confirmed by the outcomes of the site visit carried out by the Lender's Engineer.

Public Consultation and Stakeholder Engagement

The Volta River Authority, who owns and operates the plant, organizes regular workshops and maintains a grievance mechanism set up for the existing HPP.

Conclusions and Recommendations

Undertakings:

- The Promoter shall ensure that that the Environmental, Social, Health & Safety management team is adequately staffed with appropriately qualified and experienced staff to meet the Environmental & Social requirements of the project.
- A climate change study shall be conducted by 2021 and further updated every five years by an external consultant as part of the project dam safety monitoring process.

With the above-mentioned conditions and the implementation of the ESAP, the Project is acceptable for EIB financing in E&S terms.