

11.03.2024

Environmental and Social Data Sheet

Overview

Project Name:	LITHUANIAN PUMPED HYDRO STORAGE
Project Number:	2023-0271
Country:	Lithuania
Project Description:	The project concerns the extension of the existing Kruonis pumped hydro storage power plant in Lithuania by installing an additional pump-turbine unit.
EIA required:	no
Project included in Carbon Footprint Exercise ¹ :	no

Environmental and Social Assessment

The existing pumped storage hydropower (PSH) plant was commissioned in 1998 and features four vertical pump-turbine units with a total pumping capacity of 880 MW and generating capacity of 900 MW.

Under this operation it is planned to add one additional unit which features a variable speed generator (with frequency converter) and therefore has a flexible pumping and generating capacity. Therefore the unit does not only add further capacity, but also adds a high degree of operational flexibility to the overall plant.

The plant was initially projected for a capacity of 1600 MW (8 units in total). Most civil and hydraulic structures, such as the upstream water reservoir, intakes, penstock foundations and the powerhouse were already built in the 1990s to accommodate the full planned capacity.

A new penstock will be installed on existing foundations and connected to the existing intake and powerhouse structures, using prepared and accessible alignment route. The added unit will be placed in the already existing powerhouse without the need to extend the building.

All planned project measures, i.e. the installation of an additional pump-turbine unit with associated hydraulic works, will take place within the premises of the existing PSH plant and no additional land use is anticipated.

Environmental Assessment

The project includes components that fall under Annex II of the EIA Directive (2011/92/EU) as amended by Directive 2014/52/EU, thus required a review by the competent authorities at the planning/consent stage with due regard to the necessity for an environmental impact assessment.

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



The EIA legislation in Lithuania is based on transposition and implementation of Directive 2011/92/EU (amended by Directive 2014/52/EU).

Lithuania's Environmental Protection Agency (the Competent Authority) approved the project on 2.6.2022 with the comment that no Environmental Impact Assessment is required (screened out). The corresponding decision is publicly available.

Minor impacts during construction may consist of increased noise and dust levels.

The fluctuation of water levels in Kaunas Lake is regulated by legal acts with constant monitoring, therefore operation of the power plant does not cause significant impact to water species. The extension of the power plant does not affect other species (birds, mammals, bats etc.).

The closest Natura 2000 sites are Kauno marios (LTKAUB008) ca. 1 km north / northwest of the project and Vaiguvo miškas (LTKAI0004) ca. 0.5 km west of the upper reservoir. These sites were established after the implementation of the existing PSH.

The project is located on Nemunas River for which a River Basin Management Plan (RBMP) exists, compliant with the European Water Framework Directive 2000/60/EC (WFD). The project is listed in the RBMP and is in line with its requirements.

GHG emissions have been calculated but fall below the thresholds defined for the Carbon Footprint Exercise (CFE). The source of CO₂ equivalent (CO₂e) emissions for the project is from the electricity used for pumping. At project completion, the corresponding absolute emissions are estimated to be 9.0 kT CO₂e per year. These absolute emissions are offset by avoiding combined-cycle gas turbines (CCGT), which would alternatively provide the same service as the pumped storage hydropower plant in the 'do-nothing' scenario. Therefore, at completion, the programme is expected to enable a saving of approximately 14.5 kT CO₂e per year.

EIB Paris Alignment for Counterparties (PATH) Framework

The promoter AB Ignitis Gamyba, and the counterparty, the promoter's Head of Group AB Ignitis Grupe, is in scope and screened in to the PATH framework, because it is considered high emitting and high vulnerability.

The counterparty already meets the requirements of the EIB PATH framework with its existing alignment plan.

The Bank carried out a resilience assessment and concluded that the counterparty is in line with EIBG PATH framework resilience requirements.

Public Consultation and Stakeholder Engagement

Public consultations, when necessary, are organised by the competent authority, as required.

Other Environmental and Social Aspects

The promoter maintains the environmental standard ISO 14001:2015 in identification, monitoring, management and improvement of environmental aspects. 69% of the group's 2022 activities (by revenue) were ISO 14001 certified.



The promoter further applies the occupational health and safety management system ISO 45001:2018, which replaced the old OHSAS 18001:2007.

Conclusions and Recommendations

Based on the information available, the Project is expected to have minor negative residual impacts and thus is acceptable for Bank financing from an environmental and social perspective provided the fulfilment of the following undertakings:

The promoter undertakes:

- that no EIB funds will be allocated to assets connecting generation with lifecycle GHG emissions above 100gCO₂e/kWh.
- not to engage in incompatible activities, as defined in the EIB Group PATH Framework (<https://www.eib.org/en/publications/the-eib-group-path-framework>).
- to ensure that any possible modifications of the project, that may have an effect on a Natura 2000 site, will undergo an analysis (or screening) to determine whether the scheme requires an Appropriate Assessment. When an Appropriate Assessment has been deemed necessary, before allocating the Bank's funds to the relevant programme scheme, the promoter will ensure that such assessment is carried out in line with Article 6(3) of the Habitats Directive.
- to store and keep updated any documents that may be relevant for the project and which support the compliance with the provisions under the EU Habitats and Birds Directives and shall, upon request, promptly deliver such documents to the Bank.
- not to allocate the Bank's funds to Programme schemes that require an Environmental Impact Assessment (EIA)/Appropriate Assessment (AA) until the EIA and/or the AA have been finalised to the Bank's satisfaction, including public consultations, and approved by the competent authority. For schemes requiring an EIA and/or an AA, an electronic copy of the relevant documentation, including EIA/AA reports, consultation documents, EIA approvals, must be sent to the Bank as soon as each scheme is approved by the competent authority.