

Luxembourg, 16 July 2025

Environmental and Social Data Sheet

Overview

Project Name: TVO Safety Improvements II
 Project Number: 2023-0068
 Country: Finland
 Project Description: The operation includes financing of certain components of the promoter's investment programme related to safety and reliability improvements and lifetime management on units 1&2 in operation at the Olkiluoto Nuclear Power Plant (NPP). The project components include plant modifications related to the renewal of a safety related mechanical component inside the reactor and the implementation of the instrumentation and control systems lifetime management program (ICMA), which are mandated by EU and national regulation.

EIA required: no

Project included in Carbon Footprint Exercise¹: no

Environmental and Social Assessment

Environmental Assessment

The project includes equipment replacements to improve safety and reliability of units 1&2 of the Olkiluoto NPP.

All the project components are to be implemented within the nuclear power plant units in operation under valid environmental permit and nuclear operating licence. The project includes only minor modifications, which do not have significant adverse effects on the environment. Therefore, based on technical characteristics the project does not fall under projects listed in Annex I and II of the EIA Directive (2011/92/EU, as amended).

It is to be noted that these project components form part of the continuous safety improvement and service life management investments implemented during the whole life-cycle of the units 1&2 of the Olkiluoto NPP. The purpose of the continuous investments is to ensure permanent safe operation and successful aging management that would maintain the technical condition of the units allowing safe and reliable operation during and potentially beyond the timeframe of the current operating licence in force (by the end of 2038). The operator of the units is investigating the possibility to extend the service life of the units until 2048, or alternatively until 2058. Alongside the service life extension, a potential uprate of the units' thermal power by 10% is also being examined. To support the lifetime extension and power upgrade objectives an EIA process was carried out comprising the relevant public participation process also considering the transboundary context. The EIA procedure was completed in April 2025 by the issuance of the reasoned conclusion of the competent authority.

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.



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The project will support dispatchable low carbon power generation.

The nuclear sector legislation in Finland implements the relevant international Conventions and treaties providing the framework for the nuclear sector. It also addresses management of spent fuel and radioactive waste in-line with the requirements of the related European Council Directive (2011/70/EURATOM). The producer of nuclear waste is responsible for the implementation and expenses of the pertinent waste management and decommissioning activities. At the nuclear power plant sites there are interim storages for spent fuel as well as repositories for low and intermediate level radioactive wastes. The spent fuel final disposal project in Finland is the most advanced one in the world approaching the operational stage. After the ongoing trial operation, the start of spent fuel disposal is foreseen for 2025.

The climate change mitigation and resilience aspects of the project itself are negligible. The general climate aspects of the operation of the nuclear power plant were assessed in the EIA Report for service life extension mentioned above.

No meaningful absolute and relative GHG emissions can be associated with the project therefore the project is not included in the EIB CFE. The project has been assessed for Paris alignment and is considered to be aligned both against low carbon and resilience goals. The project is also in line with policies set out in the Climate Bank Roadmap and Energy Lending Policy. The relevant criterion implemented is the one covering low-carbon energy sources, which meet the emission performance standard of the Bank.

EIB Paris Alignment for Counterparties (PATH) Framework

The counterparty (TVO) is in scope and was screened in for PATH framework assessment for climate resilience based on its climate change vulnerability. Considering low carbon aspects, it was screened out, because it produces exclusively low-carbon electricity from nuclear energy, therefore it does not operate in high emitting sector. The counterparty is not engaged in incompatible activities. No Environmental, Social and Governance (ESG) issues were defined that could directly contribute to increasing the climate vulnerability of communities and/or ecosystems. The appraisal confirmed the capability of the promoter to address physical climate risks from current and future climate change on their operations. Therefore, the counterparty already meets the requirements of the EIB PATH framework with its existing resilience alignment plan.

Social Assessment, where applicable

The project is not expected to result in any significant adverse social effects. Some moderate beneficial effects are expected related to employment and economy. Occupational and public radiation doses associated with normal operations and abnormal occurrences at the Olkiluoto NPP are below the operational and regulatory dose limits and are therefore considered to be adequately controlled.



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Other Environmental and Social Aspects

The environmental system of TVO with the programs and audit procedures as well the environmental statement including the indicators is EMAS (eco-management and audit scheme) registered and fulfils the requirements of Regulation EC No. 1221/2009. The operations are managed with a certified environmental management system that complies with the international standard ISO 14001:2015 and includes an integrated energy efficiency system.

The operational impacts to environment are closely monitored and immediate actions are taken whenever necessary. Targets for significant environmental and energy aspects have been specified in the Environment and Energy Efficiency Programme which is confirmed by the Group's management. The most significant residual environmental impact of the plant operation is a minor increase in seawater temperature near the plant. Radioactive release levels are only fractions of regulatory limit values.

Occupational health and safety system of the Promoter is certified to OHSAS 18001 standard. Safe performance of work and consistent operating procedures are the goals and objectives specified for occupational safety. Extensive hazard identification and risk assessment are the tools used to minimize accidents and incidents. Occupational safety indicators are monitored regularly.

Conclusions and Recommendations

Considering the technical characteristics of the project and based on the environmental and social information provided by the Promoter, the Project is acceptable for EIB financing in E&S terms.