

**Public**

## **Environmental and Social Data Sheet**

### **Overview**

Project Name: SE SAFETY IMPROVEMENT  
Project Number: 2017-0881  
Country: Slovakia  
Project Description: Investment programme to reinforce the safety of existing units of the Mochovce 1, 2 and Bohunice V2 nuclear power plants.

EIA required: no

Project included in Carbon Footprint Exercise<sup>1</sup>: yes

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

### **Environmental and Social Assessment**

#### **Environmental Assessment**

The investment programme includes equipment and system modifications, replacements and reconstruction works on the operating units of the Bohunice and Mochovce nuclear power plants. The project will contribute to improvements in safety, security and reliability of low carbon electricity supply. The majority (~ 80%) of the planned investments are intended to improve nuclear and industrial safety, including improvements in the areas of fire protection, occupational health and safety, radiation protection and environmental protection. Other project components are eligible under defense and security category enhancing the physical protection and overall security of the power plants. The remaining components will increase the reliability and operational efficiency of the four nuclear units in operation. These investments are in line with the internationally established good practice of nuclear power plant operation based on strategy of continuous improvement using systematic long-term planning.

The vast majority (~ 90%) of the programme components are categorized as mandatory projects, the implementation of which is obligatory under the related different regulations or by different authorities. The investments in this programme, are considered necessary by the regulator for the current on-going continuous operation independently from any long-term operation considerations.

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<sup>1</sup> 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 CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

Luxembourg, 13/11/2018

All the project components are to be implemented within the existing nuclear power plant sites having a valid operational license. Although nuclear power stations are listed in Annex I of EIA Directive, this programme includes only minor changes at the already authorised Bohunice and Mochovce Nuclear Power Plants, 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 by 2014/52/EU, consequently no EIA is required.

Some of the sub-projects bring improvements in the basic safety topics of the post-Fukushima EU Nuclear Stress Test, namely in resistance of the reactors to the total loss of electrical power and ultimate heat sink as well as in resistance of the nuclear facilities to extreme weather conditions. Some sub-projects are included in the National Action Plan for Slovakia prepared, following the Stress Test. Other sub-projects will provide environmental benefits through reduction of waste production, improvement of the quality of the discharged wastewater and safe removal and disposal of building materials containing asbestos.

The type of works – e.g. equipment replacement, installation of new pipelines, cables, equipment and instrumentation inside existing facilities, rehabilitation and reinforcement works on civil structures – do not represent environmental risk if appropriate working practices are applied.

The nuclear sector legislation in Slovakia adequately implements the relevant international Conventions and treaties and provides an appropriate framework for the nuclear sector.

This project would facilitate climate change mitigation by supporting low carbon power generation.

### **EIB Carbon Footprint Exercise**

Due to the CO<sub>2</sub> free power generation of the nuclear power plants the absolute emissions of the project is zero. Following efficiency and availability improvements, the increased output of the operating nuclear units will result in an estimated emissions savings of 263 tonnes of CO<sub>2</sub> equivalent per year, calculated in line with the Bank's Carbon Footprint methodology for firm capacity baseload generation plant in an electricity system with low demand growth like Slovakia.

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**

Extensive hazard identification and risk assessment tools are used by the Promoter to minimize accidents and incidents. Occupational safety indicators are monitored regularly. Some project components address rehabilitation and reconstruction works to reduce occupational health and safety related risks.

### **Public Consultation and Stakeholder Engagement**

One of the most important stakeholders in the dialogue on the safety and operation of the nuclear power plants and their environmental impact are residents living in the immediate vicinity of the power plants. In the regions of the Mochovce and Bohunice nuclear power plants, they are represented through regional associations of towns and municipalities and their citizen information commissions (CIC) for direct communication with management of the nuclear power plants. These commissions conduct dialogue and improve the public's

Luxembourg, 13/11/2018

informed awareness about the nuclear installations at both localities. Meetings of the CIC with NPP directors are held regularly at least three times a year.

For residents in the regions of the plants there is a bimonthly magazine *Energia pre krajinu* [Energy for the Country]. A print run of 5000 magazines is distributed to municipality offices of all villages and towns within a 20-kilometre radius around both nuclear power plants, and electronically to municipalities in the regions of other power plants.

One of the most effective tools for informing the public about nuclear power is a visit to the information centre *Energoland Mochovce*, or excursions at the premises of the power plants. Even with strict security measures in place throughout the year of 2017, more than 16 000 people visited the power plants.

### **Other Environmental and Social Aspects**

There is an established system for monitoring of required parameters related to air and water pollution as well as and waste management. The processes are governed by the relevant internal documentation, which applies the requirements of the legislation and the decisions of the supervisory authorities. Control processes ensuring environmental protection during operation include periodic analyses of discharged wastewater, monitoring of waste handling and regular inspections of activities with potential impact on the environment performed by internal and external suppliers. No event with impact on the environment has been recorded in the past few years and the surrounding environment of the power plants has not been compromised. No fines or financial penalties related to environmental impact were imposed to the organization during this period.

The Integrated Management System of the Promoter is certified according to the international ISO 9001, ISO 14001 and OHSAS18001 standards.

Luxembourg, 13/11/2018

## 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.