

# Supporting the nuclear power programme in Belarus

## The challenge

In January 2008, the Security Council of Belarus approved the construction of a nuclear power plant (NPP), and a law on the use of nuclear energy was enacted in July 2008. Launching a national nuclear energy industry was a considerable step towards enhancing the country's energy security and a powerful incentive for accelerating technological-advanced and innovation-driven future development.

In July 2012, Belarus signed a construction contract with the Russian Federation for two 1170 MWe units, as well as fuel supply, spent fuel take-back, training and other services. To develop the workforce for the new NPP, a national training system to supply qualified specialists for the nuclear power sector was created within the State Programme of Education and Training for the Belarus Nuclear Power Programme. The required infrastructure was established and key organizations (nuclear energy programme implementing organization, operating organization, regulatory body and technical support organization) involved in the implementation of the national nuclear power programme were defined. Belarus is working toward IAEA Milestone 3, 'Ready to commission and operate the first nuclear power plant' (IAEA document NG-G-3.1 (Rev. 1) 'Milestones in the Development of a National Infrastructure for Nuclear Power'). The IAEA and Belarus have developed a country-specific Integrated Work Plan to support the implementation of the Belarus Nuclear Power Programme.

## The project

An IAEA technical cooperation project was set up to strengthen the operating organization and to develop a human resources management system for the first nuclear power plant in Belarus, with the objective of ensuring its safe and reliable operation. Under the project, a quality management system and a legal framework for personnel training were developed. Training programmes for the NPP staff were reviewed in line with a systematic approach to training. The NPP training centre was equipped with two new computer-based training modules



Nuclear power plant construction, Belarus, July 2018. (Photo: BelNPP/Ministry of Energy of the Republic of Belarus)

for reactor and turbine operation and national capabilities in operating experience were built at a training course held in cooperation with the World Association of Nuclear Operators (WANO). NPP personnel undertook several scientific visits to other experienced Member States, and NPP staff were also trained in support activities for a NPP, public communication and public involvement in the nuclear power programme. National workshops on financial risk management and on the economic aspects of radioactive waste management were organized. In addition, a Site and External Events Design (SEED) Review Service took place in 2017 to review the design parameters of the NPP against external hazards specific to the site of Ostrovets, Belarus. In the subsequent report, IAEA experts concluded that appropriate steps were undertaken to adequately address all necessary aspects of site safety and site-specific design parameters.

### The impact

Natural gas dominates the current energy balance in Belarus, reaching 95% in the domestic electric power industry. A national nuclear power programme will improve the country's energy mix, and will at the same time increase the country's energy security and improve its ecological situation. According to a public opinion poll conducted in 2017, 50% of the population supports the development of a national nuclear power programme in Belarus and 58% supports the construction of the Belarussian NPP. The project will contribute to ensuring access to affordable, reliable, sustainable and modern energy.

# **PROJECT INFORMATION**

### Project No: BYE2006

**Project title:** Supporting Human Resources and Infrastructure Development for the Commissioning of the First Nuclear Power Plant

**Duration:** 2016-2017 (2 years), extended 6 months to June 2018

Budget: €252 000

**Contributing to:** 



#### **Partnerships and counterparts**

The World Association of Nuclear Operators participated in project activities, provided suitable experts and organized various training courses and meetings.

Several activities held under the project involved representatives of the Belarussian regulatory body Gosatomnadzor. The project counterpart was the Ministry of Energy.

### The science

Nuclear power offers a reliable, low carbon source of energy. In the Belarussian NPP, two NPP-2006 power-generating units will be operated. These advanced water-cooled reactors have active and passive safety features and they comply with the international standards and IAEA recommendations.



The Site and External Events Design (SEED) Review Service took place in 2017 to review the design parameters of the NPP against external hazards specific to the site of Ostrovets, Belarus. (Photo: BelNPP/Ministry of Energy of the Republic of Belarus)

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