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Nuclear Energy Expertise

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Polish Nuclear Program

Origins of the Polish Nuclear Energy Program date back to late 70's with the construction of a Russian VVER reactor to be finally abandoned in 1990.

With EU accession in 2000 Poland committed to implement and follow ambitious targets of the Climate Policy. As a result, both hard coal and lignite fired power plants, representing more than 80% of generation mix, gave the floor to rapidly developing renewable energy sources.

As big scale energy storage infrastructure is not available yet national security of supply needs to be provided by controllable, low CO₂ emission generation. And this is how nuclear energy is brought back to life, rising vital component of Polish generation mix.

The Energy Policy until 2030 adopted by the Polish Government in 2009 initialized the Polish Nuclear Energy Program followed in 2014 with a forecasted total capacity of nuclear power plants equal to 6 GW.

Polska Grupa Energetyczna (PGE) - the biggest vertically integrated Polish electric power utility, was nominated to lead implementation of Nuclear Energy Program. Its subsidiary - PGE EJ - was founded for the purpose of preparatory works, construction and operation of the future power plant. Site selection and characterization studies have been started and EIA procedure initiated.

Recently, expected nuclear power capacity of Polish energy mix has been increased to 9 GW.

Technology nor site has been not decided yet. With the future energy market design however, modular energy sources will play exceptionally important role. This is why SMR, being not competitive but truly complementary to big nuclear reactors, is not only crucial component fitting energy transformation of Poland and many others fossil fuels dependent EU countries but also should be considered "technology of common interest" essential to successfully implement the Pan European Green Deal.





Why Piela Business Engineering ?

Members of Piela Business Engineering have been involved in the Nuclear Power Program in Poland from the very beginning.

In 2009 our core team was contracted by PGE Polska Grupa Energetyczna to prepare best practice analysis related to the nuclear power plant project. At the same time we supported development of assumptions for regulations regarding investment in nuclear power plant projects - The Law of Development and Implementation of Nuclear Power Projects and accompanying investments and selected chapters of Atomic Law. Since then we've been engaged in several projects related to Nuclear Power Program in Poland as well as in other European countries, such as:

- Review of Project Information Sheet for the RAW Incineration Facility construction project in Poland for ZUOP (Polish RAW Management entity), 2020
- Review of selected chapters of the Feasibility Study for the Sinop Nuclear Power Plant project in Turkey, 2019
- Support to the Ministry of Energy of Republic of Poland in development amendment to the law on development and implementation of nuclear power plant projects and accompanying investments and other selected laws, 2018
- Preparation of financial and technical assumption for the financial model of Sinop Nuclear Power Plant project in Turkey, 2018
- Review of nuclear power plant decommissioning programs. The aim of the project was to collect and analyse the data necessary for the assessment of the efficiency of nuclear decommissioning support programs in Lithuania, Slovakia and Bulgaria. The project was performed for the Energy Direction of European Commission, 2017

- Analysis of potential support systems for the first Polish Nuclear Power Plant Project for the Ministry of Energy of Republic of Poland, 2016
- Evaluation of the document "Contract for Differences recommended as a mechanism for ensuring the economic predictability and profitability of the implementation of the Polish nuclear programme" and preparing alternative investment process proposals. The project was performed for the Ministry of Energy of Republic of Poland, 2016
- Analysis the main risks of the project to construct the first Polish nuclear power plant, with a proposal of a new model of its implementation. The project was performed for PGE Polska Grupa Energetyczna S.A. – the investor of the first Polish Nuclear Power Plant, 2016
- Advisory to WorleyParsons Nuclear Services JSC related to stakeholder management, EIA management and strategic general project management during Site Characterisation Project for the First Polish Nuclear Power Plant, 2013-2015
- Support to WorleyParsons Nuclear Services JSC during two tenders in Poland: Site Characterization for the First Polish Nuclear Power Plant Project and Owner's Engineer, 2011-2012
- Analysis of the benefits of the Polish Nuclear Energy Program for the country" – a desk study conducted for the Ministry of Economy of the Republic of Poland, 2011
- Support in the development of assumptions for regulations regarding investment in nuclear power plant projects – The Law of Development and Implementation of Nuclear Power Projects and accompanying investments and selected chapters of Atomic Law, 2009-2011
- Best practice analysis concerning a nuclear power plant project for PGE Polska Grupa Energetyczna S.A. – a study of NPP projects in six European countries in all key areas, 2009-2010

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