

Developing Nuclear Power Infrastructure in the Europe Region

The challenge...

In several countries in Europe, nuclear power programmes are either being developed or considered in order to meet increasing energy demands and to address concerns regarding climate change, and energy security. Other European countries with active nuclear power programmes are considering the expansion of production capacities for similar reasons. For all these countries, a structured methodological approach to the entire spectrum of issues that needs consideration in setting up or expanding nuclear power programme is necessary. Such an approach provides certainty that the key requirements for using nuclear power for energy production, with particular regard to safety, will be met.

The project...

The IAEA provides support to Member States embarking on nuclear power programmes or expanding their existing production capacities based on the methodology defined in the document Milestones in the Development of a National Infrastructure for Nuclear Power (IAEA Nuclear Energy Series NG-G-3.1, 2010). This methodology features 19 issues that need to be considered in establishing a new nuclear power programme. Through a series of regional workshops and training courses, Member States are enabled to evaluate the nuclear option and assess their overall infrastructure including international legal instruments, legal and regulatory framework, liability issues, energy planning, stakeholder involvement, public communications strategies, setting requirements, human resources development and other issues.

The project intends to further support capacity building to enable strategy development, feasibility assessment, decisions on financing strategies, nuclear power infrastructure programme management, etc. The project contributes to the safe introduction of new nuclear power capacities, and is implemented in parallel to other projects related to supporting regulatory authorities in the Europe region that focus on the establishment and development of a nuclear safety infrastructure and a regulatory framework in accordance with IAEA safety standards.

The impact...

Through this project, relevant authorities in participating Member States acquired an understanding of the issues related to the introduction of a nuclear power programme, the associated challenges and risks, and in particular, the safety aspects. Expert advice from countries with advanced nuclear power programmes and exchange of experience between the countries themselves have provided participating Member States with a useful set of information on issues that include the national position on nuclear power, workforce planning, stakeholder involvement, becoming an knowledgeable customer of nuclear power technology, financial and investment models, human resources development, associated safety, and security and safeguards.



Project participants visit to the construction site of the Flamanville 3 nuclear power plant in Normandy, France.