

Fact Sheet on Nuclear power infrastructure and planning

What is the activity or service provided?

For Member States who are considering the introduction of nuclear power plants, or are planning to construct further nuclear power plants, advice and support can be provided on the issues that need to be addressed throughout the programme of introduction.

Specific assistance to individual requests, tailor made to customer's needs and requirements, implemented at location, focused on development of nuclear infrastructure issues of the requesting organizations through:

- Providing initial information on the range of issues that need to be considered before embarking upon a nuclear power programme
- Assistance with the evaluation of the available infrastructures
- Proven practices that can serve as models to solve specific issues
- Practical guidance for implementation of identified actions
- Specialized support on topics such as:
 - Assessing the nuclear infrastructure development status
 - Assessing the NPP project implementation
 - Implementation of specific phases of the NPP project
 - Preparation of the feasibility studies for NPPs
 - Preparation of the bid invitation specifications for NPP and evaluation of the bids
 - Tasks and resources needed for the implementation of a NPP
 - Nuclear power project management
- Providing information on proven practices that can serve as models to solve specific issues
- Practical guidance for implementation of identified actions

What are the benefits?

- Improved development of national nuclear infrastructure and institutional arrangements for nuclear power
- Building the capability to perform Owner's functions for a nuclear power project
- Increased competence in organizations involved in planning, operating or regulating nuclear activities and facilities,
- Sharing and disseminating world experience in nuclear power development and implementation

How to benefit of this activity?

Requesting an advisory/ review mission, a national project, joining a regional project, etc.

Main strengths of the services:

- Obtaining advice on the whole range of infrastructure issues that need to be considered
- Sharing best international experience
- Recognized qualification and credibility
- Providing impartial assistance

Looking ahead:

- There are several stages in the process of introducing nuclear power in a country. These include the development of national nuclear infrastructure, feasibility studies; technology evaluation; request for proposals and proposal evaluation; project and contracts development and financing; supply, construction, and commissioning; and finally operation. The IAEA developed guidance directed to assessing the national nuclear infrastructure necessary for:
 - A host country to address when considering the implementation of nuclear power, or
 - A supplier country to consider when assessing that the recipient country would be in an acceptable condition to begin the implementation of nuclear power.
- There are Member States that may find it difficult to obtain the benefits of nuclear energy if the infrastructure requirements are too large or onerous for the national economy. The IAEA has also developed guidance on the potential for sharing of nuclear power infrastructure among countries adopting or extending nuclear power programme.
- A Brochure “Considerations to launch a nuclear power programme” has been produced which provides guidance for decision makers on the range of issues that need to be considered. A more detailed document “Milestones in the development of a national infrastructure for nuclear power” is available.

Other Information:

Target customers of this service:

- Decision makers and advisors from governmental organizations such as: Ministries, Research & Development Organizations, Regulatory Bodies and others.
- Managers and Engineers from Utilities/Owner’s organizations planning and implementing nuclear activities and commissioning and constructing operating facilities.
- Managers from technical support organizations and other stakeholders in the development of a nuclear industrial capability..

Other material:

List of related IAEA publications can be provided upon request.

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Further information is available on the Departmental website,

<http://www.iaea.org/OurWork/ST/NE/index.html>