



# International Ministerial Conference on Nuclear Power in the 21st Century

**Abu Dhabi, United Arab Emirates**

**30 October–1 November 2017**

*Organized by the*  
International Atomic Energy Agency

*in cooperation with the*  
Nuclear Energy Agency of the  
Organisation for Economic Co-operation and Development

*Hosted by the*  
Government of the United Arab Emirates  
*through the*  
Ministry of Energy and Federal Authority for Nuclear Regulation

## **Announcement**

### **A. Background**

Following the Ministerial Conferences held in Paris in 2005, in Beijing in 2009 and in Saint Petersburg in 2013, the International Atomic Energy Agency (IAEA) is organizing an International Ministerial Conference on Nuclear Power in the 21st Century in Abu Dhabi, United Arab Emirates, from 30 October to 1 November 2017.

The circumstances surrounding the use of nuclear power continue to evolve. A growing number of countries see nuclear power playing an essential role in addressing climate change and contributing to sustainable development. Thirty countries already operate nuclear power plants (NPPs) and an additional thirty countries are considering or preparing to introduce nuclear power. The United Arab Emirates will commission its first

NPP in 2017. Fifteen countries are now constructing more than 60 new NPPs which are expected to begin operations in the coming years.

Innovation continues to lower barriers to the wider adoption of nuclear power. New types of ownership structures and investment models are being pursued to reduce the risks and difficulties faced by countries in securing financing for nuclear power. Currently evolutionary new design NPPs are being deployed. Lessons learned from first-of-a-kind deployments are expected to drive construction costs down and shorten construction schedules. The first small modular reactors are under construction and several have clear deployment roadmaps for next decade. Nuclear power is also being considered not only for producing electricity but also for multi-purpose utilization, including for desalination and for industrial use. Investors are facilitating the development of novel nuclear technologies. Several countries are about to construct final disposal facilities for spent fuel and high-level radioactive waste which will help address one of the long-standing public concerns about radioactive waste.

## **B. Objectives**

The objective of the conference is to enable the participants to engage in high-level dialogue on the role of nuclear power in meeting future energy demand, contributing to sustainable development and mitigating climate change, as well as to discuss and exchange views on the key issues related to the development and deployment of nuclear power.

## **C. Conference Structure and Major Topics**

The conference will consist of:

- A plenary session at which national statements will be delivered;
- Two special presentations on innovative ideas from world renowned personalities;
- Four panel sessions with a keynote speech followed by round-table discussions among internationally recognized experts; and
- Side events featuring senior officials from the conference organizers and the host country.

Ministerial level participants are invited to deliver brief national statements related to nuclear power, discussing for example, their countries' energy strategy and vision for the role of nuclear power, challenges for introducing, maintaining or expanding nuclear power and expectations for the international community.

During two special presentations, prominent speakers will discuss two key issues for sustainable development of nuclear power in the world: facilitating investment in nuclear power technology and increasing the participation of women in the global nuclear workforce.

The panel sessions are envisaged to cover the following major topics:

### **➤ Nuclear power as a key to solving the '3E's trilemma'**

This session will examine the role of nuclear power in mitigating climate change as an option in a sustainable energy mix under different national conditions and as a driver for sustainable development. It will include discussions on energy, socioeconomic, environmental and sustainable development

issues, and the potential role of nuclear energy in helping parties to the United Nations Framework Convention on Climate Change meet their commitments.

➤ **Challenges in developing nuclear power infrastructure**

This session will focus on challenges in developing strong nuclear power infrastructure, including financing and public acceptance for a nuclear power programme. It will highlight current interest in nuclear power, especially in newcomer and expanding countries, with an emphasis on the IAEA's Milestones approach, and the fact that embarking on or reviving a viable nuclear power programme requires a sound nuclear power infrastructure with a large variety of competencies. It will also discuss the importance of informed decision-making when considering a nuclear power programme, including governmental commitment to the required long term national and international obligations, for a country to effectively move forward to other phases of its nuclear power programme preparation and implementation process. In addition, the session will discuss the potential innovative models being explored to finance nuclear power programmes as well as public perception constraints. This session will also discuss investor's point of view for nuclear power development.

➤ **Safety and reliability aspects of nuclear energy**

This session will discuss how to ensure a high level of safety, security and non-proliferation in dealing with challenges such as the expansion of nuclear power in the world, long term operation of NPPs and a variety of innovative technologies. Also, international efforts related to the development of regulatory requirements and framework for small modular reactors will be shared for discussion. The session aims to stress that the development of a nuclear power programme is a national responsibility and that the long-term commitment involved requires upfront investment in the nuclear safety infrastructure. In particular, the responsibilities of the government have to be addressed early in the development phases to establish the appropriate governmental, legal and regulatory framework.

➤ **Innovations and advances in nuclear technologies**

This session will highlight new developments/changes in various areas related to nuclear power. The specific needs which nuclear power is expected to fulfil are diversifying from electricity production alone at large-scale NPPs to a wide range of uses and output capacities in countries with diverse levels of economic development. The session will also discuss what kinds of innovative nuclear technologies are necessary to adapt to diverse energy needs and purposes as well as the international cooperation that is required to develop capacity for sustainable management of nuclear power in a growing number of countries.

## **D. Participation**

All persons wishing to participate in the conference are requested to register online in advance. In addition, they must send a completed Participation Form (Form A) and, if applicable, the Grant Application Form (Form C) as soon as possible to the competent official authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for subsequent transmission to the IAEA.

Participants whose official designations have been received by the IAEA will receive further information on the conference at least three months before the conference. This information will also be made available on the conference web page (see Section L).

## **E. Expenditures and Grants**

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of designated participants attending the conference. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of certain participants. Such assistance may be offered upon specific request provided that in the IAEA's view the participants on whose behalf assistance is requested will make an important contribution to the conference. In general, not more than one grant will be awarded to any one country.

If governments wish to apply for a grant on behalf of one of their participants, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are:

1. Submitted by **30 June 2017**;
2. Accompanied by a duly completed and signed Grant Application Form (Form C);
3. Accompanied by a completed Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

## **F. Distribution of Documents**

A preliminary programme of the conference will be made available on the conference web page (see Section L) and the final programme will be distributed at the conference during on-site registration. National statements in the original languages, PowerPoint presentations as available, and other relevant documents will be posted on the conference web page during the conference.

## **G. Exhibitions**

A limited amount of space will be available for displays/exhibits during the conference. Details will be provided on the conference web page in the near future.

## **H. Working Language**

The working languages of the conference will be all the official IAEA languages: Arabic, Chinese, English, French, Russian, and Spanish.

## **I. Accommodation**

Detailed information on accommodation and other administrative details will be made available on the conference web page well in advance of the conference.

## **J. Visas**

Designated participants who require a visa to enter the United Arab Emirates should submit the necessary application(s) to the nearest diplomatic or consular representative of the United Arab Emirates as soon as possible. Please keep an eye on the conference web page for further advice/instructions on this.

## **K. IAEA Conference Secretariat**

### **General postal address and contact details of the IAEA:**

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### **Administration and organization:**

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## **L. Conference Web Page**

The IAEA web page for the conference is as follows:

<https://www.iaea.org/events/nuclear-power-conference-2017>

It will be updated regularly with new information, and participants are encouraged to check it on a regular basis.