



Technical Meeting on Modelling the Contribution of Nuclear Power to Clean and Secure Transitions

IAEA Headquarters, Vienna, Austria

14–18 July 2025

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Information Sheet

Introduction

The International Atomic Energy Agency (IAEA) is organizing a Workshop on Modelling the Contribution of Nuclear Power to Clean and Secure Transitions at its Headquarters in Vienna, Austria, on 14-18 July 2025.

Energy scenarios help inform policymakers on various pathways for energy system development that balance multiple objectives, including environmental considerations, economic factors, and energy security. These scenarios examine different approaches to energy production and consumption while addressing the need for affordable, secure, and resilient energy supply.

Energy transition scenarios consider nuclear energy's proven potential as a reliable source of electricity production. Future energy needs will require increased electrification, to which all available technologies will need to contribute, including nuclear energy. The entire energy system – including sectors and activities that cannot be easily electrified, such as heavy duty or maritime transport, or energy-intensive industrial activities like steel making – will also need to evolve toward more diverse energy sources and carriers, using alternative fuels and heat.

A clean and secure energy transition prioritizes diversification of energy sources and supply chains. This helps reduce dependency on potentially unstable import markets, enhances energy security, and builds resilience against market volatility and risks. By developing robust energy systems, countries can better ensure stable energy access and economic stability.

Hydrogen serves as a versatile energy vector, producible from various sources including nuclear power. Additionally, nuclear heat can also directly supply district heating and industrial processes, while offering flexibility and storage capabilities for modern power systems. Advanced reactors and Small Modular Reactors expand nuclear energy's applications beyond electricity to include heating, desalination, and hydrogen production. Energy scenarios incorporating these applications help policymakers understand nuclear technology's potential to enhance energy security through diversification and reliability.

Objectives

The main objective of this event is to gather and share information on energy scenario studies performed by Member States, and how these studies are used or planned to be used for policymaking. The event will focus on how the potential of nuclear energy, for electricity and other applications, is considered in scenario models and assumptions, and related analyses, as well as in the communication of scenario modelling outputs to decision makers.

Participants at the event will be invited to review the guidelines for modelling nuclear energy in future energy scenarios. Findings from comparing the modelling of nuclear energy using different approaches and assumptions will also be discussed.

The event will also provide an opportunity for the IAEA to update participants on the Atoms4NetZero initiative (launched by IAEA Director General Rafael Mariano Grossi at COP27 in November 2022) and collaboration work done with several Member States, and to identify potential interest for further studies.

Target Audience

Member States and International Organizations are invited to designate participants for this event who have specialized knowledge of, or experience in, the design and/or use of energy scenario models to investigate pathways for the development of energy systems. This event is suitable for policymakers, technology developers, scientists, managers from the electricity, nuclear and hydrogen industries, as well as representatives of financial institutions working on or interested in energy systems, energy planning and the potential role of nuclear energy in contributing to cost-effective transitions. Member States are strongly encouraged to identify suitable women participants for this event.

Working Language(s)

English

Topics

The following topics will be covered in the event:

- The role of nuclear energy in energy system scenarios, as a source of stable and clean power generation technology integrated in energy systems with large shares of variable renewables, as well as a source of energy to produce heat, hydrogen, or other fuels.
- Cost optimization of energy transitions.
- Metrics of reliability and resilience of energy systems.
- Modelling assumptions (costs, financing parameters, technology readiness, etc) for nuclear and other technologies.
- Modelling environmental impacts in scenarios to assess the resilience of future energy pathways/systems.
- Scenario modelling to inform policymakers and/or the finance community.
- Guidelines on modelling nuclear energy and findings from model comparisons

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **2 June 2025**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
 - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
 - Persons without an existing NUCLEUS account can register [here](#).
2. Once signed in, prospective participants can use the InTouch+ platform to:
 - Complete or update their personal details under ‘Complete Profile’ and upload the relevant supporting documents;
 - Search for the relevant event under the ‘My Eligible Events’ tab;
 - Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating Authority’ (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
 - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
 - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
 - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **2 June 2025**.

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

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 participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by **2 June 2025**.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on other matters related to the event to the Administrative Secretaries.