



Technical Meeting on Atoms4NetZero: Decarbonizing Industry and Other Sectors with Nuclear Energy

Hosted by the

Government of China

through the

Nuclear Power Institute of China (NPIC)

Chengdu, China

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Information Sheet

Introduction

Meeting the goals of the Paris Agreement to limit global warming well below 2°C and targeting 1.5°C by the end of the century will require decarbonizing the whole energy sector in the next few decades. All the net zero scenarios envision a substantial increase in electrification of all sectors ramping up from the current 20% share currently worldwide to above 50-60% by around the middle of the century, with massive deployment of low carbon electricity generation technologies, including variable renewables (wind, solar for example) as well as dispatchable and firm capacity such as nuclear power and hydropower.

But there remains a large proportion of energy and industrial sectors where electrification is not achievable and other means of decarbonization are needed. Nuclear energy could be one of these options: nuclear plants can, besides low carbon electricity, also supply low carbon heat directly to industry and other heat demanding sectors (for example, district heating), a unique feature of nuclear plants among the various scalable low-carbon energy sources.

The purpose of this meeting is to bring together experts from the industrial and other end-use sectors, as well as from the nuclear industry, to explore these possibilities and inform Member States of the actual status and potential of utilizing nuclear energy for decarbonizing industry and other sectors through the

supply of low carbon heat and electricity.

This Technical Meeting, organized under the umbrella of the Atoms4NetZero initiative, provides an opportunity to develop an understanding of the energy needs that could be satisfied by nuclear energy for the applications of interest by industry or other sectors, in terms of the technical requirements for heat supply, as well as in terms of the decarbonization potential through the replacement of fossil fuel utilization. This in turn will allow a better understanding of which reactor technologies, existing or under development, are best suited for each of the process needs. The meeting will also provide an opportunity for nuclear experts to discuss the technology readiness status of the main reactor technologies suitable for coupling with cogeneration facilities, the development plans and the key steps required for their successful deployment, including needed R&D, demonstration, and regulatory requirements, with a focus on the coupling of nuclear plants and cogeneration facilities, as it relates to safety, licensing and efficient techno-economics. This includes envisioned actual schemes for coupling various facilities with the balance of plant and tapping point for steam as planned by the reactor vendors.

This meeting will also lay the groundwork for future IAEA activities in support of nuclear's role for decarbonizing the industry sector and beyond, including formulating advice and guidance for future meetings and other activities that could serve optimally the needs of Member States.

Objectives

The objectives of the meeting are the following:

- Capture relevant aspects (such as needed R&D, status of technical readiness and commercial development, associated technical challenges) for the deployment of nuclear plants to service the energy needs of the industry and beyond.
- Understand the potential of the various nuclear technologies in various stages of development which are optimally suited to provide the energy needs of the various energy consuming sectors, including technological readiness, status of demonstration facilities, deployment plans worldwide.
- Understand the expected relative benefits of direct heat utilization in various facilities, as compared to electrification and utilization of hydrogen, as well as other factors affecting their expected performance, from various angles, including technology, economics and environmental impact.
- Understand the key factors that can facilitate the deployment of nuclear projects for the various industries, including required temperatures and relative size of the heat/electricity demand, and expected issues related to regulatory requirements.
- Provide guidance on future IAEA activities relating to nuclear energy use for the industry sector and contribute to an outlook report summarizing the findings of the meeting.

Target Audience

The event will be attended by experts representatives of the energy consuming sectors (industry, heating sectors) that are considering the nuclear option for decarbonization purposes, of the nuclear industry sector as well as by nuclear experts working on technology, economics, licensing of nuclear reactors to be coupled with various industrial facilities.

Working Language(s)

English.

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 6 October 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 6 October 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 the 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 6 October 2025.

Visas

Participants who require a visa to enter China should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of China.

Organization

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