

Atoms for Peace

Technical Meeting on Specific Infrastructure Considerations for Nuclear Cogeneration Applications

IAEA Headquarters, Vienna, Austria

and virtual participation via Cisco Webex

23-25 April 2025

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Information Sheet

Introduction

Nuclear energy provides a reliable and abundant source of clean and dispatchable power. Beyond or combined-with electricity generation, the direct use of nuclear heat, including low-grade or waste heat, for applications such as industrial processes, district heating, desalination and hydrogen production, can enable efficiency gains and support the decarbonization of industrial and residential sectors, with notable applications in high-energy-consuming and hard-to-abate industries.

The IAEA NG-G-3.1 (Rev. 2) 'Milestones in the Development of a National Infrastructure for Nuclear Power' provides guidance to countries starting or expanding nuclear programmes. Clear milestones are defined, along with 19 important infrastructure issues (listed below) and related activities that need to be addressed, in order to accomplish each milestone and warrant a successful programme implementation.

Nuclear cogeneration projects are implicitly nuclear power infrastructure projects, and thus the guidance laid out in [Ref 1] remains applicable. However, the coupling of the reactor with cogeneration systems

can add specificities and distinctive features that may have implications in the 19 infrastructure issues outlined in [Ref. 1]. To date no specific guidance is available for nuclear cogeneration projects.

In response to requests from the Standing Advisory Group for Nuclear Energy and individual Member States, and to address specific GC Resolutions (GC66-res9 Section A.7.4, and GC68-res11 Section A.7.4), an analysis of the 19 infrastructure issues has been undertaken to identify any additional, specific considerations and any ensuing requirements that may stem from the coupling of nuclear and cogeneration systems.

A Technical Document is being prepared to supplement the IAEA NG-G-3.1 (Rev. 2) and to provide further support for the planning, evaluation and deployment of nuclear cogeneration projects in interested Member States, raising awareness on cogeneration specificities that stakeholders need to take into account.

In the frame of this ongoing efforts and in line with its mandate to facilitate the implementation of nuclear energy for sustainable development, the IAEA is organizing this Technical Meeting to enable the review of the Technical Document under preparation and to provide a forum for interested Member States to share relevant experience and expertise in this field for their mutual benefit.

During the meeting up-to-date information on concrete experience from existing cogeneration projects worldwide will be collected to complement the content of the manuscript.

Nineteen infrastructure issues

- 1. National position
- 2. Nuclear safety
- 3. Management
- 4. Funding and financing
- 5. Legal framework
- 6. Safeguards
- 7. Regulatory framework
- 8. Radiation protection
- 9. Electrical grid
- 10. Human resource development
- 11. Stakeholder engagement
- 12. Site and supporting facilities
- 13. Environmental protection
- 14. Emergency Preparedness and Response
- 15. Nuclear security
- 16. Nuclear fuel cycle
- 17. Radioactive waste management
- 18. Industrial involvement
- 19. Procurement

Objectives

The objectives of the meeting are the following:

- Review draft considerations on infrastructure issues specific to nuclear cogeneration applications to be incorporated in the Technical Document 'Specific Infrastructure Considerations for Nuclear Cogeneration Applications';
- Provide a forum for Member States engaged with actual or prospective implementation of nuclear cogeneration applications to share and discuss experience, information, expectations and specific requirements on different Milestone Infrastructures;
- Provide feedback and input for the finalisation of the Technical Document 'Specific Infrastructure Considerations for Nuclear Cogeneration Applications';
- Provide any additional advice and guidance on future IAEA activities relating to non-electric applications of nuclear energy.

Target Audience

The event is intended for project managers, decision makers, engineers and other stakeholders with relevant experience in the implementation of nuclear cogeneration projects and R&D related to cogeneration, in Member States with existing, planned and considered cogeneration facilities, including district heating, desalination, hydrogen production and direct use of nuclear heat for industrial applications.

Working Language(s)

English.

Expected Outputs

The main expected outputs of this meeting are: review and feedback of the draft Technical Document 'Specific Infrastructure Considerations for Nuclear Cogeneration Applications', and recommendations towards its finalization. Collection of relevant input and up-to-date information on the implementation of cogeneration projects and programmes on nuclear process heat for industrial processes. A technical report summarizing the discussions held.

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 13 March 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 dropdown menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
 - If applicable, indicate whether a paper is being submitted and complete the relevant information;
 - 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 autogenerated 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 13 March 2025.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

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 <u>Agency's Personal Data and Privacy Policy</u> 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 <u>Data Processing Notice</u> 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.

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 Secretary.