

Second Technical Meeting for the INPRO Collaborative Project "Framework for Modelling Energy System" (FRAMES)

IAEA Headquarters Vienna, Austria and virtual participation via Cisco Webex

28-31 October 2025

Ref. No.: EVT2306625

Information Sheet

Introduction

This is the second technical meeting (TM) for IAEA's International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO) Section **FRA**mework for **M**odelling Energy Systems (FRAMES) collaborative project. The INPRO Section led the development of the FRAMES tool, with support from the IAEA's Planning and Economic Studies Section (PESS). FRAMES is an analytical structure and framework, consisting of a Model and Tool, that supports evaluating the role of various power generation technologies within sustainable energy systems. FRAMES enables users to examine how nuclear power, particularly when integrated with variable renewable power generation storage and emission reduction technologies can contribute to a balanced and resilient energy system under various economic, technical, and regulatory conditions to support policy considerations. The application of FRAMES fosters Member States in developing energy plans that promote energy security, reliability, and carbon emission goals.

INPRO launched the FRAMES collaborative project in March 2024, based on INPRO Members' endorsement at the 32nd INPRO Steering Committee Meeting (October 2023). This FRAMES project supports members in analysing and planning sustainable nuclear energy system by optimizing energy

system costs. The project comprises coordinated model development, and tool utilisation and benchmarking. After the completion of development, it is important to release of FRAMES version 1.0 and have more Member States utilizing the tool to develop and analyse their energy plans. Thus, this meeting is to wrap up the initial FRAMES collaborative project, release version 1.0 of the tool, review beta-testing and validation activities and to initiate the second collaborative project which will expand utilization of the tool and the development of case studies for publication in an IAEA Technical Document.

Objectives

The purpose of the event is to review and provide an update on the progress of the International Project on Innovative Nuclear Reactors and Fuel Cycles' (INPRO) Collaborative Project "Framework for Modelling Energy Systems" (FRAMES); to update the Terms of Reference, including scope and schedule; to explore applicable aspects of the FRAMES model in studies and investigations; to review model utilization for the evaluation of system costs in nuclear energy systems for grid capacity expansion; and to draft an IAEA Technical Document.

The following are the specific key objectives of the meeting:

- review and update on the progress of FRAMES Collaborative project;
- present the final results from beta testing, validation, and model utilization to wrap up Phase I of the Collaborative Project;
- release FRAMES V1.0;
- plan for the long-term maintenance of the tool;
- initiate case studies for exercising the tool; and
- propose the future activities of a Collaborative Project and draft the Terms of Reference (ToR) for Phase II.

Target Audience

The meeting participants are FRAMES collaborative project participants and experts from INPRO members and observer countries, particularly covering the following areas:

- Energy system modelling, either developing tools or using similar tools in strategic energy planning and for decision making;
- Energy generation technology characteristics and their application in the electrical grid and overall energy system;
- Validation and beta-testing activities; and
- INPRO Member States interested in developing Case Studies using the FRAMES Model and Tool.

Working Language(s)

The working language of the meeting is English.

Expected Outputs

The following are expected outputs of this technical meeting on the FRAMES collaborative project:

- Summary of the FRAMES Collaborative Project including beta testing and validation results to closeout Phase I;
- Release of FRAMES V1.0;
- Draft of Phase II ToR; and
- Draft the meeting report.

Structure

The meeting will include presentations from IAEA Secretariat and FRAMES Collaborative Project participants and observers, as well as other participating INPRO MS experts who intend to use or contribute to FRAMES tool. The following are specific activities for this meeting.

- IAEA Secretariat will present the status of FRAMES version 1.0 and its associated documents.
- FRAMES Collaborative Project participants, including those who performed beta-testing, and validation activities, will present case studies, including final findings and results. Project observers should make presentations on their general observations, and suggestions.
- Other attendees will present and discuss their national or regional specific cases or the development and use of their models and tools, including their experience on benefits and deficits in comparison to FRAMES; and to identify common areas for further FRAMES' development, validation, and utilization.
- All participants, including IAEA Secretariat, FRAMES Collaborative Project participants, observers, will join the discussion to plan the future activities and draft the ToR for Phase II of the FRAMES Collaborative Project.

Meeting sessions will be in- person, with support for virtual participation via Cisco Webex. All participants of the meeting are encouraged to make presentations, contribute to brainstorming for promoting the use of FRAMES tool, future activities of the Collaborative Project and drafting of the meeting report and Phase II ToR.

Topics

All participants are expected to contribute to one or more of the following topics.

- *Model development:* Identification of areas for further modelling development to increase the functionality and efficiency of the model by adding or restructuring its elements or modules for wider use and applicability; to cover more comprehensively a variety of energy and environmental policy and technology options (focusing on nuclear energy with renewable and other technologies).
- *Model utilization:* Development of specific national or regional generation capacity expansion and transition scenarios that have been (or are to be) analysed to quantitatively compare (based on system cost) the competitiveness of various generation technology options.
- *Long-term maintenance*: Technical support (collecting, evaluating and incorporating Model or Tool improvement suggested by users, resolving issues of users); and administrative support for coordinating utilization of FRAMES by Member States.
- *Case Study development:* Member States will begin planning the case studies under development for utilizing FRAMES tool.

Participation and Registration

All persons wishing to participate in the event must 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 (<u>https://intouchplus.iaea.org</u>) 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 **5 September 2025**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<u>https://intouchplus.iaea.org</u>):

- 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 <u>here.</u>

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 **5 September 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 regarding 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.

Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to give presentations are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format, should extend to no more than two (2) pages (including figures and tables) and should not exceed 250 words. It should be sent electronically to Ms Mai Vu, the Scientific Secretary of the event (see contact details below), not later than **22 September 2025**. Authors will be notified of the acceptance of their proposed presentations by **6 October 2025**.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not able 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 **5 September 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. There will also be a Webex link for those attending virtually.

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: <u>www.iaea.org/events</u>.

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 to allow for timely registration. Participants will need to present an official photo identification document 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.

IAEA Contacts

Scientific Secretary:

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

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event: www.iaea.org/events/EVT2306625