

Joint WG NPS-IAEA Workshop: Future of Nuclear Power Source Applications in Outer Space

Setting the stage

The use of nuclear power sources (NPS) in outer space has opened up the solar system to exploration, making it possible to send space missions to distant planetary bodies that would otherwise be unreachable. Embarking on a new era for space exploration with return of humans to the Moon, and beyond, depends on mass-efficient, high-energy solutions to power deep-space vehicles, operate in harsh environments and increase mission flexibility. Established already in the late 1970s, the Working Group on the Use of Nuclear Power Sources in Outer Space of the Scientific and Technical Subcommittee of COPUOS, has a long record of productive work. In addition to serving as a mechanism to exchange information on the use of nuclear power sources in outer space, to benefit from lessons learned and facilitate international cooperation, this had led to the [1992 Principles on the Use of NPS in Outer Space](#) and the [2009 Safety Framework for Nuclear Power Source Applications in Outer Space](#), developed, jointly with the International Atomic Energy Agency (IAEA).

Under the current five-year (2024-2028) workplan of the Working Group on the Use of Nuclear Power Sources in Outer Space (see [A/AC.105/1279, annex III](#)), one of the three main objectives is to collect and analyse relevant technical information about potential future uses of NPS in outer space, in particular those involving nuclear reactors. In furtherance of this objective, the Working Group, alongside the IAEA, is organising this Joint Workshop on the 'Future of Nuclear Power Source Applications in Outer Space'.

OBJECTIVES

The Joint Workshop with the IAEA aims to gather information on emerging technologies and applications, particularly nuclear reactors for deep-space missions, supporting human and robotic exploration of the Moon, Mars and the outer solar system. Invited representatives of States, international intergovernmental organizations, industry and academia will exchange views, plans and experiences in using NPS applications and their future plans over the next two decades.

The workshop will also address the implementation of legal, regulatory, and technical measures for the safe use of NPS in outer space and exchange on the value of existing frameworks given technology advances and planned use cases: The 1992 Principles Relevant to the Use of Nuclear Power Sources in Outer Space and the Safety Framework for Nuclear Power Source Applications in Outer Space, jointly developed by the Committee on the Peaceful Uses of Outer Space and the IAEA in 2009.

Over the course of this Workshop participants will have the opportunity to hear from both experienced actors in the use of Nuclear Power Source Application in Outer Space, as well as emerging actors involved in the development of novel methods for the future of outer space exploration. The Workshop will provide ample opportunity for engagement, learning and coordination.

Workshop information

Date and time: 9 June 2029, 9:00 a.m.- 6.00 p.m. CEST

Venue: Vienna International Centre (VIC), Board-Room D

PROGRAM

The latest version of draft program is available [here](#).

AUDIENCE

The Workshop is by invitation only.

The workshop is intended for representatives of States members of COPUOS, the IAEA, permanent observer organisations with COPUOS, industry and academia.

REGISTRATION is required. Please find the link to registration [here](#).

- Deadline for registration to attend in-person: May 20, 2026 - 6pm CEST.
- Deadline for registration for webcast link: May 20, 2026 - 6pm CEST.

FAQ

What is the working language of the conference?

The working language of the conference is English.

Where is the venue?

The conference will take place at the Vienna International Center (VIC), Wagramer Strasse 5, 1400 Vienna, Austria, C-Building, 4th floor, Boardroom-D.

How can I watch the workshop online?

The workshop will be available for invited and registered participants to follow online via MS Teams. Invited participants will receive an email with connection details closer to the date of the workshop. Please check your spam folder if you have not received the email.

As an online attendee, am I able to ask questions to the speakers?

This is an online broadcast. Thus, it is not possible for online attendees to intervene.

Does the UN provide funding for travelling?

All in person participants are expected to fund their own travel.

Does UN provide health insurance?

Health insurance for each of the selected participants attending in person is necessary and is the responsibility of the participant or his/her institution or government. UNOOSA will not assume any responsibility for life and health insurance, nor for expenses related to medical treatment or accidents.

Consent

Please be aware that by attending the event in person, you are providing consent that photos and videos taken during the event may be published on the UNOOSA website.

Who do I contact for further information?

For additional information, please contact unoosa-submissions@un.org (Please start your subject line with [Joint NPS Workshop]).

As per:

https://www.unoosa.org/oosa/en/ourwork/copuos/stsc/nps/Joint_Workshop_WGNPS_IAEA.html