63rd IAEA
General Conference

side events

IAEA Nuclear Energy

# Reactor Technology Innovation to Support Integration of Renewable Energy Systems and Nuclear Installations

Wednesday, 18 September 2019, 14:00–16:00
M7, M building, ground floor

Nuclear power can generate enormous amounts of reliable, carbon free electricity. Some nuclear power plants can already provide flexible operation based on energy demand, while renewable energy systems, such as wind and solar, are intermittent. This event will highlight nuclear technology innovations required to better integrate intermittent renewables and nuclear power, and to extend the use of nuclear power to non-electric applications.

Member State representatives will share their experiences on activities to integrate different advanced reactor technologies with renewable energy sources. They will also discuss the potential for nuclear cogeneration, used in district heating, desalination, industrial heat, hydrogen production, or thermal energy storage.

The event will also highlight IAEA activities on nuclear–renewable hybrid energy systems and feature a demonstration of the IAEA's Advanced Reactors Information System (ARIS), which provides Members States with balanced, comprehensive and up-to-date information about advanced nuclear plant designs and concepts.

**Chair:** **Stefano MONTI**
Section Head, Nuclear Power Technology Development Section
IAEA Department of Nuclear Energy

**Scientific Secretaries:** **Frederik REITSMA, Ibrahim KHAMIS**
Nuclear Power Technology Development Section
IAEA Department of Nuclear Energy

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## Agenda

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|---|---|
| **Opening address** | **Mr Cornel Feruta**<br>Acting Director General<br>International Atomic Energy Agency |
| **Industry experience in managing NPPs in a grid with a large share of renewable energy sources** | **Mr Denis JANIN**<br>Portfolio Manager<br>Preussen Elektra, Germany |
| **Beyond baseload: NuScale SMR flexibility and integration with renewables** | **Ms Lenka KOLLAR**<br>Director, Strategy & External Relations<br>NuScale Power, USA |
| **Nuclear energy reimagined: U.S. development of integrated energy systems** | **Mr John C. WAGNER**<br>Associate Laboratory Director<br>Idaho National Laboratory, USA |
| **Advanced process heat applications with solar and nuclear for full substitution of fossil fuels** | **Mr Nils HANEKLAUS**<br>Researcher<br>RWTH Aachen University, Germany |
| **Japan's HTGR development programme and potential for non-electric applications** | **Mr Taiju SHIBATA**<br>Leader, International Cooperation Group<br>Japan Atomic Energy Agency (JAEA), Japan |
| **IAEA activities on nuclear-renewable hybrid energy systems and the ARIS database** | **Ms Tatjana JEREMOVIC**<br>Team Leader, WCR Technology Development<br>Nuclear Power Technology Development Section, IAEA Department of Nuclear Energy |
| **Discussion (Q & A session)** | |
| **Closing remarks** | **Mr Stefano MONTI**<br>Section Head, Nuclear Power Technology Development Section<br>IAEA Department of Nuclear Energy |