



65th IAEA General Conference

Innovations in the Production and Use of Nuclear Hydrogen for a Clean Energy Transition

A Hybrid Event of In-Person and Virtual on WebEx

Tuesday, 21 September 2021, 10:00 – 11:30 CET

Conference Room C3, C Building, 7th Floor

[Register here](#)

Climate change challenges and the need for urgent action to achieve decarbonization of all energy sectors as well as latest advancements in technology have been leading to considerations for nuclear hydrogen's role in the energy transition towards net zero goals. Interest in nuclear hydrogen production is growing internationally due to the potential of nuclear energy to capitalize both on electricity and heat generation, in a sustainable, low carbon and cost-effective manner. Demonstration projects are ongoing in several countries to analyse the feasibility and business opportunities of nuclear hydrogen production, using existing light water reactors (LWRs) coupled with low temperature electrolyzers. In

other countries, research and development are focused on the medium-term potential of advanced reactors and small modular reactors for non-electric applications and hydrogen production using high temperature steam electrolysis (HTSE) or thermochemical processes.

This event highlights some of the latest progresses achieved in nuclear hydrogen projects and showcases the potential of nuclear energy for hydrogen production. Sector cooperation, supply chain and policy support, all of which have a crucial role in moving these projects forward, will be discussed.

Session Chair:

Mr Stefano MONTI

Section Head,
Nuclear Power Technology Development Section
Division of Nuclear Power, NE

Scientific Secretary:

Ms Alina CONSTANTIN

Associate Nuclear Engineer (Non-electric applications),
Nuclear Power Technology Development Section,
Division of Nuclear Power, NE



Innovations in the Production and Use of Nuclear Hydrogen for a Clean Energy Transition

Hybrid Event during the 65th IAEA General Conference, Tuesday, 21 September 2021, 10:00-11:30 CEST

Event Programme

Opening Remarks

Mr Mikhail CHUDAKOV

IAEA Deputy Director General,
Head of the Department of Nuclear Energy

Shifting the Nuclear Paradigm: Leveraging Today's LWRs and Tomorrow's Advanced Reactors for Affordable Clean Hydrogen Production

Mr Richard BOARDMAN

Director for Energy and Environment Science and
Technology Programs Office
Idaho National Laboratory, USA

Nuclear Hydrogen: Lessons learned from a Canadian case study

Mr David CAMPBELL

Director
Bruce Power Centre for Next Generation Nuclear,
Nuclear Innovation Institute, Canada

Development of nuclear-hydrogen power engineering in Russia for economics decarbonization

Mr Nikolay KODOCHIGOV

Advisor to the Director General
JSC "Afrikantov OKBM", Nizhny Novgorod, Russian
Federation

Decarbonising hydrogen in a net zero economy

URENCO/AURORA

Kees Jan STEENHOEK
Director, Government Affairs
URENCO

Mr Felix CHOW-KAMBITSCH

Head of Commissioned Projects, Western Europe
Aurora Energy Research

Francesco GANDA

Nuclear Engineering Expert (INPRO)
IAEA Department of Nuclear Energy

Questions and Answers

Closing Remarks

Ms Alina CONSTANTIN

Associate Nuclear Engineer, Nuclear Power
Technology Development Section,
IAEA Department of Nuclear Energy

