



Workshop – Attaining Carbon Neutrality: The Role of Hydrogen

24 March 2021, 14:00 – 17:00 CET (Geneva time)

Objective

- Discuss recent commitments and progress towards carbon neutrality via hydrogen
- Understand technical, economic, and public relations challenges to a meaningful decarbonisation
- Identify where and how UNECE can help member States to accelerate the transition

Context

Hydrogen is an innovative solution to achieving carbon neutrality and other climate targets. In 2019 and 2020 the key players from across the UNECE region came up with decarbonization strategies in which hydrogen is to play a pivotal role (e.g., [Hydrogen Road Map Europe](#), [Hydrogen Economy in Russia](#), and [US Hydrogen Strategy](#)).

Hydrogen is recognized as the bridge to achieving carbon neutrality of the energy system, especially in hard-to-abate sectors. In a future sustainable energy system hydrogen—along with other renewable and low-carbon gases—might be used in industry, homes, power generation, and transport. This in turn might lead to the creation of an integrated service-based society.

In November 2020 the Group of Experts on Gas prepared for the 29th session of the Committee on Sustainable Energy a document: [Hydrogen – an innovative solution for carbon neutrality](#). The document recommended to member States to be agnostic and neutral when it comes to technologies, and to adopt common, science-based terminology. The document proposed ideas how to accelerate electrolyser development and deployment. It called for a stronger Transatlantic cooperation and cooperation between UNECE and other Regional Commissions.

Hydrogen, although clean and versatile, is not an energy source but an energy vector: it must be **produced, transported/stored** before being **used** (converted to other forms of energy, such as electricity or heat, or to other chemicals). The workshop will feature three breakout sessions to discuss developments in production, transportation/storage, and use of hydrogen.

The workshop will end with a brainstorming on the role of UNECE in accelerating the transition to hydrogen through questions such as:

- How can UNECE (and UN in general) help accelerate hydrogen economy?
- Should UNECE engage in the politics of green vs. blue debate?
- How to help with National Hydrogen Strategies - development, harmonization, implementation?
- Do we need a region-wide Action Plan for Hydrogen?
- Which legal instruments are needed to support these processes?

Findings and recommendations of the workshop will be reported to and further discussed at the 8th session of the Group of Experts on Gas on 25 and 26 March 2020.



Workshop – Attaining Carbon Neutrality: The Role of Hydrogen

24 March 2021, 14:00 – 17:00 CET (Geneva time)

Introduction - Why it matters? Setting the scene (40 Minutes)

Welcome address

Mr. Dmitry Mariyasin, Deputy Executive Secretary, UNECE

Bird's view on the UNECE work in hydrogen

Mr. Florian Marko, Vice-chair, UNECE Group of Experts on Gas, Austria

Paths to attaining carbon neutrality through hydrogen

Ms. Tatiana Mitrova, Head of Research, Skolkovo Energy Centre, Russia

Roadmap for production and use of hydrogen in Ukraine, a case study

Mr. Kostiantyn Gura, Chair, Group of Experts on Renewable Energy (GERE); Acting Head, State Agency on Energy Efficiency and Energy Saving (SAEE) of Ukraine

Assessing Hydrogen Value Chain: (breakout sessions, 60 Minutes)

Group 1: Production

Moderator:

Mr. Kostiantyn Gura, Chair, GERE; Acting Head, SAEE, Ukraine

Panellists:

Ms. Alena Fargere, Investor, SWEN Capital Partners

Mr. Evgeniy Grin, Deputy Head of Division, International Business Department, GAZPROM

Mr. Nazir Ramazanov, former GERE Chair, Director of Business Development, Corporate Energies GmbH

Mr. King Lee, Director Harmony Programme, World Nuclear Association

Discussion and takeaways

Group 2: Transportation & Storage

Moderator:

Mr. Francisco de la Flor Garcia, Chair, Group of Experts on Gas

Panellists:

Mr. Abel Enriquez, EU Regulatory Affairs Manager, Enagás, Spain

Mr. Thierry Lepercq, Founder, Soladvent, France

Ms. Gaëlle Cauchois, Principal Consultant - Carbon Limits, Norway

Ms. Eva Hennig, Head of Energy Policy EU, Thüga Aktiengesellschaft, Germany

Mr. Kiss Siegfried, Head of Business Development, RAG, Austria

Discussion and takeaways

Group 3: **Use**

Moderator:

Mr. Jon Gibbins, Vice-chair, Group of Experts on Cleaner Electricity Systems

Panellists:

Mr. Jürgen Peterseim, Senior Manager Sustainability Services at PricewaterhouseCoopers/World Energy Council

Mr. James Carton, Assistant Professor in Energy Sustainability & Hydrogen & Fuel Cell Technology Development, Dublin City University, Ireland

Mr. Ian Moore, Director - Low Carbon at Advisian

Discussion and takeaways

Break 10 min

Plenary discussion 60min

- Reporting from breakout groups
- Biggest impact solutions
- Common challenges and gaps (policy, financial, technical, PR)
- How can UNECE (and UN in general) help accelerate hydrogen economy?
 - Hydrogen politics – should UNECE engage in green vs blue debate?
 - National Hydrogen Strategies - development, harmonization, implementation
 - Progress assessment for National Hydrogen Strategies?
 - Do we need a region-wide Action Plan for Hydrogen?
 - If so, which legal instruments are to support, or emerge from, such Action Plan (soft commitments → best practices → recommendations → standards → legally binding conventions)?

Wrap up, next steps 10min