



Canada Energy
Regulator

Régie de l'énergie
du Canada

Hydrogen Initiatives at the Canada Energy Regulator

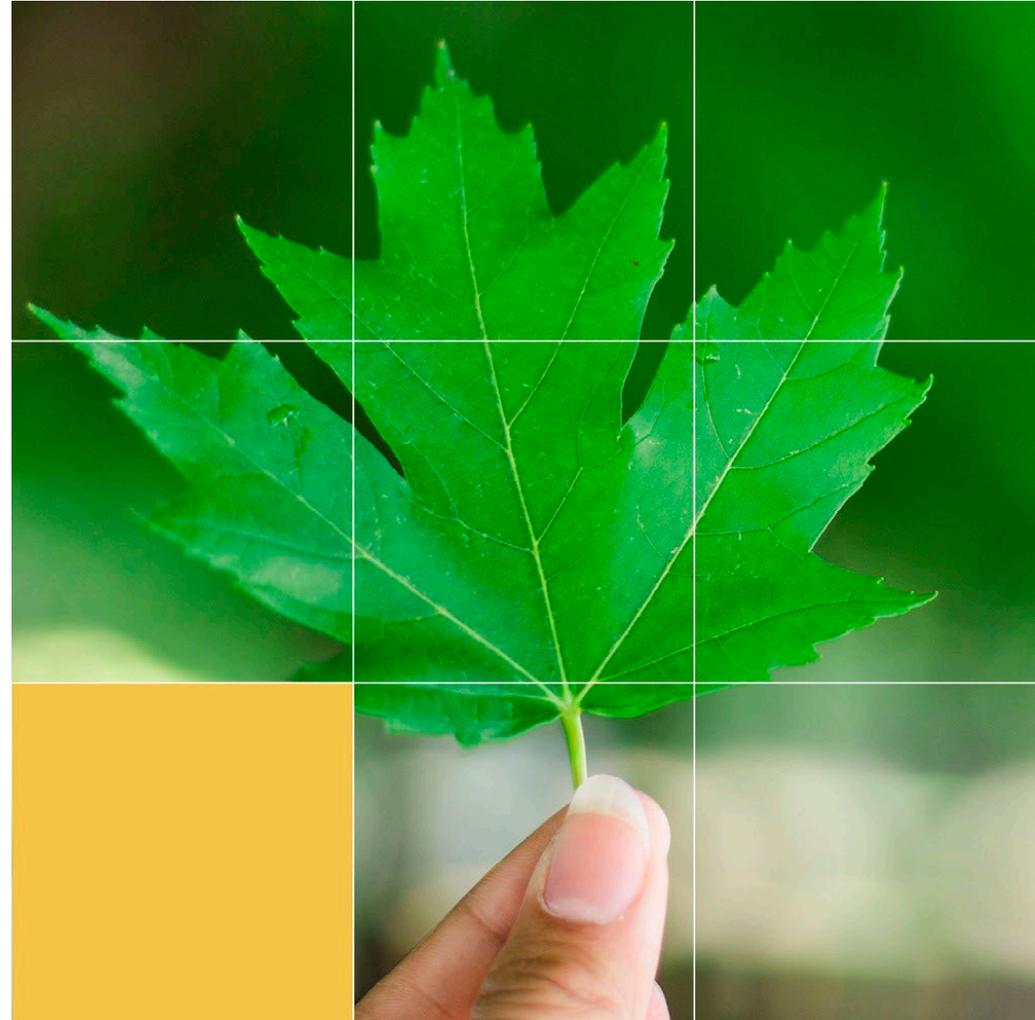
**Hydrogen and Emerging Fuels R&D
Public Meeting and Forum**

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Outline

- CER's Role and Mandate
- Emerging Energy Sources in Canada
- Hydrogen Strategy for Canada
- CER's ongoing work on Hydrogen
- Areas of Interest and Collaboration



CER's Mandate

- Regulation of pipelines and facilities
- Regulation of energy exploration and production in Canada's North and Arctic offshore
- Regulation of international/interprovincial power lines and offshore renewable energy projects
- Regulation of traffic, tolls and tariffs
- Advice and reporting on energy matters



Emerging Energy Sources in Canada

- Hydrogen
- Synthetic Fuels (Eg: Syngas)
- Biofuels and Renewable Natural Gas (RNG)
- Wind and Solar
- Nuclear



Hydrogen Strategy for Canada

- In December 2020, the Government of Canada released its *Hydrogen Strategy for Canada*
- The Strategy lays out a framework for actions that will cement hydrogen as a tool to achieve the goal of net-zero emissions by 2050
- There are 32 recommendations in the Strategy within eight pillars
- At present, the CER is actively working to address three pillars in particular





CER's Ongoing work on Hydrogen

Pillar 4: Codes and Standards

- CSA Z662 - Oil & Gas Pipeline Systems - Hydrogen Task Force

Pillar 5: Enabling Policies & Regulations

- Review of regulatory and filing guidance to identify gaps

Pillar 6 Awareness

- Energy Information Publications:
 - *Carbon capture, utilization, and storage market developments*
 - *How hydrogen has the potential to reduce the CO₂ emissions of natural gas*
 - *A Near-Term Outlook for Renewable Power in Canada*
- Canada's Energy Future 2021: new module to represent H₂ in energy modeling



Areas of Interest and Collaboration

Regulatory

- Developing consistent regulations, codes and standards for hydrogen and Hydrogen/natural gas blended pipelines and associated facilities

Standards development and technologies

- Hydrogen blending and safety
- Hydrogen interaction with steels, other materials and new materials, including permeation and defect acceptance criteria
- Improvements and new technologies in pipeline inspection methods (ILI technologies and leak detection)
- Carbon Capture, storage and utilization (CCUS)

Other areas of interest

- Risk assessment and Emergency response
- Long-term environmental impacts (potential impact on global warming)



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Questions?

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