## ERO / EBR Number: 019-2709

**Notice Title: Ontario Low-Carbon Hydrogen Strategy - discussion paper**

**Link to proposal notice:** [**https://ero.ontario.ca/notice/019-2709**](https://ero.ontario.ca/notice/019-2709)

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| Number of written comments:  0  Number of electronic comments:  145 (75 through the registry; 70 via e-mail).  Total comments received:  145 | Decision Summary On April 7, 2022, we released our Low-Carbon Hydrogen Strategy for Ontario. The strategy was informed by feedback received on the "Ontario Low-Carbon Hydrogen Strategy" discussion paper and the Hydrogen Strategy Working Group. |

## Decision Details

**Update**

This Notice was originally posted by the Ministry of the Environment, Conservation and Parks (MECP). The responsibility for releasing Ontario’s Low-Carbon Hydrogen Strategy was subsequently transitioned to the Ministry of Energy (ENERGY).

**Ontario’s Low-Carbon Hydrogen Strategy**

Ontario's Low-Carbon Hydrogen Strategy was released on April 7, 2022, and sets out a vision for a low-carbon hydrogen economy in our province – one where we can leverage our many strengths to develop a self-sustaining sector in Ontario, evolve our energy system, create local jobs and attract investment while reducing greenhouse gas emissions.

Ontario's hydrogen strategy sets out a path where eight concrete and immediate actions are expected to lead to an eight-fold increase in the province's production capacity of low-carbon hydrogen and support the nascent market to meet its potential. These are:

1. Launching the Niagara Falls Hydrogen Production Pilot
2. Identifying Ontario's Hydrogen Hub Communities
3. Assessing the Feasibility of Hydrogen Opportunities at Bruce Power
4. Developing an Interruptible Electricity Rate
5. Supporting Hydrogen Storage and Grid Integration Pilots
6. Transitioning Industry Through the Use of Low-carbon Hydrogen
7. Consulting on an Ontario Carbon Sequestration and Storage Regulatory Framework
8. Supporting Ongoing Hydrogen Research

Ontario also recognizes the importance of working with the federal government and other provinces and territories to advance commercial development of hydrogen. This strategy calls on the federal government to offer tangible supports and partnerships with the province including funding and risk-sharing opportunities, clear and efficient regulations that are harmonized across leading jurisdictions and support for innovation.

## Effects of Consultation

We received 145 submissions during the 60-day consultation period on the Environmental Registry for the Ontario Low-Carbon Hydrogen Strategy Discussion Paper, with comments from industry, academia, non-governmental organizations, municipalities and individuals.

The level of support among respondents was generally high, with 113 supportive, 28 neutral and 4 unsupportive. All comments were reviewed and considered in developing Ontario’s Low-Carbon Hydrogen Strategy.

After receiving input on the discussion paper, we established a Hydrogen Strategy Working Group (HSWG) to help further inform and guide the development of Ontario’s Low-Carbon Hydrogen Strategy. The HSWG met from February to June 2021 and was made up of experts from industry and academia.

Thoughts and considerations about a hydrogen strategy were also received from Indigenous communities that participated in an Indigenous engagement session held in March 2021.

The comments and feedback received through these various consultations and engagements have been summarized into seven main themes. The themes and how they are addressed in Ontario’s Low-Carbon Hydrogen Strategy are summarized below.

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| Theme | Hydrogen Strategy Actions |
| Partnership and Collaboration | Working with Ontario Power Generation (OPG), the Independent Electricity System Operator (IESO), Bruce Power, Enbridge, H2GO Canada and other stakeholders on immediate actions to support the hydrogen sector. Ontario will also collaborate with the federal government, municipalities, Indigenous communities, academic institutions and other key stakeholders on future areas of work to advance Ontario’s hydrogen economy. |
| Regulations, guidelines and legislation | Consulting on an Ontario carbon sequestration and storage regulatory framework; prioritizing red tape and burden reduction; Technical Standards and Safety Authority (TSSA) proactive in developing regulations and codes to support the safe adoption and use of hydrogen; Ontario Energy Board (OEB) approval with support from TSSA of North America's first pilot project to blend hydrogen into natural gas pipelines. |
| Financial Incentives | Support of Niagara Falls hydrogen production project through a Gross Revenue Charge (GRC) exemption; developing an Interruptible Electricity Rate; supporting hydrogen storage and grid integration projects through IESO. |
| Market integration | Identifying Ontario’s hydrogen hub communities (e.g., Niagara Falls, Halton Hills, Windsor, Nanticoke, Sarnia-Lambton); Ministry of Energy undertaking its own third-party led feasibility study to explore opportunities to establish new low-carbon hydrogen or clean fuel hubs in Ontario; Bruce Power launching a Hydrogen Opportunities Study. |
| Public awareness | Ontario will share educational information with the public, including Indigenous communities, to increase knowledge of low-carbon hydrogen's environmental benefits and how its use can reduce emissions while growing the economy; support for hydrogen research (e.g., H2GO independent studies); collaboration with federal government (e.g., federal hydrogen strategy working groups). |
| Education, training and business development | Ontario launched the 2021-22 Pre-Apprenticeship Training Program Call for Proposals to increase career interest in skilled trades including those related to hydrogen; Ontario Skills Development Fund is supporting priority sectors such as advanced manufacturing and technology (i.e., which can include hydrogen technology); regional economic development funds can support low-carbon hydrogen in Ontario. |
| Research and Development | Ministry of Energy undertaking its own third-party led feasibility study to explore opportunities to establish new low-carbon hydrogen or clean fuel hubs in Ontario; Bruce Power launching a Hydrogen Opportunities Study; funding support for two H2GO studies (i.e., supply-demand and hydrogen/carbon storage); Atura Power identifying hydrogen hub locations. |

Hyperlinks or documents to include in notice

Ontario’s Low-Carbon Hydrogen Strategy: <https://www.ontario.ca/page/ontarios-low-carbon-hydrogen-strategy>

Ontario Geologic Carbon Storage Discussion Paper and Proposed Amendments to the Oil, Gas and Salt Resources Act and Mining Act: <https://ero.ontario.ca/notice/019-4770>

Geological Sequestration of Carbon Dioxide: A Technology Review and Analysis of Opportunities in Ontario: <http://www.climateontario.ca/MNR_Publications/276925.pdf>

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