



NEWS RELEASE

\$20 million in hydrogen funding awarded by the Hydrogen Centre of Excellence

ATCO and Qualico study opportunity for emission-free, pure hydrogen community in Strathcona County

EDMONTON, ALBERTA, February 21, 2023 – <u>The Alberta Hydrogen Centre of Excellence</u> (HCOE) is awarding \$20M to 18 successful projects to advance innovations in hydrogen through its first funding competition.

One of the successful projects is the proposed Bremner 100 per cent Hydrogen Community in Strathcona County, Alberta. Together, <u>ATCO</u> and <u>Qualico</u> are studying the logistics, technology requirements and other considerations involved in safely and affordably developing 100 per cent pure hydrogen communities – an important step towards eliminating carbon emissions that are produced when we heat our homes and use hot water. Findings will demonstrate feasibility and contribute to designing this unique community. A future home to 85,000 residents and to commercial and industrial businesses, Bremner will be Sherwood Park's newest community, a Canadian first, and globally, the largest scale project of its kind.

Other successful projects in the competition will examine the safe and effective use of pipelines for hydrogen transmission. Another project will look at how to convert heavy-duty long-haul trucks to dual-fuel machines. In all, projects will examine everything from production, transmission, distribution, and storage, to end-uses of hydrogen.

Projects funded by <u>Alberta Innovates</u> will address:

- Developing and deploying hydrogen-focused technologies;
- Building a sustainable and self-sufficient clean hydrogen economy in Alberta; and
- Increasing Alberta's technology strength in clean hydrogen technology deployment.

A total of 68 project proposals were received, with 18 being chosen to move forward for a value of over \$20 million. The HCOE will fund up to 50 per cent of eligible costs for the successful projects, or up to 75 per cent of eligible costs for projects led by post-secondary institutions, or those with a significant Indigenous component. The total value of the funded projects, including matching investments for project partners, is over \$200 million. Projects have 24 months to complete their proposed work.

QUOTES

"Unlocking the potential of clean hydrogen is an essential part of the federal government's plan for a prosperous economic future in Alberta and across Canada. I'm pleased to be working with the provincial government to realize that potential."

the Honourable Jonathan Wilkinson, Minister of Natural Resources

"Alberta has a reputation for applying technology to find solutions to complex problems. A perfect example of this is the exploration of hydrogen's potential to provide affordable, reliable, clean energy; which reinforces Alberta's reputation as a responsible, sustainable energy producer and supplier."

Nate Glubish, Minister of Technology and Innovation

"Strathcona County is pleased about being home to a study that could lead to the first hydrogen community in North America. This is another showcase for our region's strong hydrogen node. We're proud to be part of preparing for a greener future, in a hydrogen economy that will contribute to safe, sustainable living, economic growth and job creation."

Rod Frank, Mayor, Strathcona County, Alberta

"Alberta Innovates is pleased to announce the successful projects for the inaugural funding competition from the Hydrogen Centre of Excellence. We are at the forefront of the new hydrogen economy. The work these organizations undertake will position Alberta as a leader in hydrogen innovation. We're excited to see the outcomes from these projects."

Laura Kilcrease, CEO, Alberta Innovates

"The development of pure hydrogen communities could be the province's most cost-effective pathway of decarbonizing home heating, leveraging Alberta's existing natural gas infrastructure and the expertise of Albertans—a true win-win for Alberta. Building on our hydrogen expertise at home and abroad, ATCO is eager and ready to bring the innovation and technical know-how needed today to successfully ensure projects like Bremner become a reality."

Jason Sharpe, President, ATCO Gas

"At Qualico, our purpose is simple, to help build better communities by driving sustainable change through innovation in planning, designing and building methods. Working with ATCO, we are taking that purpose to the next level by studying hydrogen as a zero-emissions energy for heating and hot water to understand how it may be incorporated into our newest residential community of Bremner, in Strathcona County and Sherwood Park."

Brad Armstrong, Vice-President, Community Development – Northern Alberta, Qualico

BACKGROUND

Hydrogen Centre of Excellence – Successful Projects:

Institution	Project Title	HCOE Contribution
Air Products	Air Products Liquid to Gaseous Portable Fueler	\$2,000,000
Alberta Power (2000) Ltd.	Battle River Carbon Hub - Hydrogen Burner Testing	\$2,000,000
Alliance Pipeline Ltd.	The Alliance Pipeline System Hydrogen Blending and Extraction Study	\$1,000,000
Ampclad Coating	Development of a Hydrogen Pipeline Coating and Liner Technology	\$609,550

ATCO Gas and Pipelines Inc.	Bremner: A Strathcona County Hydrogen Community	\$2,000,000
ATCO Gas and Pipelines Inc.	Fort Saskatchewan Operations Centre – Hydrogen Centre of Excellence	\$875,935
Aurora Hydrogen	Clean, Low Cost, Distributed Hydrogen Production Using RF Driven Methane Pyrolysis	\$2,000,000
Hydra Energy Corporation	Alberta Market Demonstration and Scalability for Hydrogen Combustion Retrofit System for Class 8 Trucks	\$550,450
Hydrogen in Motion Inc.	Scale-up, Certification and Demonstration of Low Pressure Solid State Hydrogen Storage	\$1,440,223
Innovative Fuel Systems Ltd	Hydrogen Dual Fuel for Heavy Duty Long Haul Vehicles	\$2,000,000
Inter Pipeline Ltd.	Feasibility Study: Heartland Ammonia Project	\$2,000,000
Momentum Materials	Development of Precisely Controlled Membrane Electrode Assembly for High Performance and Durable Hydrogen Fuel Cells	\$500,000
New Wave Hydrogen Inc.	A New Wave in Hydrogen Production	\$1,000,000
TransCanada Energy Ltd.	Feasibility Assessment - Hydrogen Blending in High Pressure Transmission Pipelines	\$600,000
University of Alberta	Hydrogen Storage in Alberta's Salt Caverns: Risk Assessment, Design Criteria, and Operational Optimization	\$500,000
University of Calgary	De-Risking Underground Hydrogen Storage Through Deep Biosphere Genomics	\$300,000
University of Calgary	Technical Assessment Program for the Suitability of Existing Natural Gas Pipelines for Hydrogen Transport	\$225,000
University of Calgary	Monitoring of Blended Hydrogen Behaviour in Pipe Systems	\$500,000
	Total	\$20,101,158

<u>The Hydrogen Centre of Excellence</u> will help make Alberta a world leader in the innovative production, deployment and use of hydrogen across our economy, acting as a connecting forum to bring together researchers, academics, innovators, industry, and various levels of government to enable Alberta achieve its hydrogen ambitions.

The Hydrogen Centre of Excellence is led by Alberta Innovates, with the applied research and engineering expertise of its two subsidiaries, InnoTech Alberta and C-FER Technologies. The centre is a funding program, testing and service facility, and forum for facilitating partnerships to de-risk hydrogen technology development.

About ATCO

With approximately 7,100 employees and assets of \$24 billion, ATCO is a diversified global corporation with investments in the essential services of Structures & Logistics (workforce and residential housing, innovative modular facilities, construction, site support services, workforce lodging services, facility operations and maintenance, defence operations services, and disaster and emergency management services); Utilities (electricity and natural gas transmission and distribution, and international operations); Energy Infrastructure (energy storage, renewable energy generation, industrial water solutions, and clean fuels); Retail Energy (electricity and natural gas retail sales, and whole-home solutions); Transportation (ports and transportation logistics); and Commercial Real Estate. More information can be found at <u>www.ATCO.com</u>.

About Alberta Innovates

Alberta innovates is the province's most comprehensive research and innovation agency. From funding to commercialization, we are Alberta's innovation engine. We foster and accelerate research and innovation to benefit citizens and drive economic growth.

Our total managed portfolio impact is \$1.2 billion in value encompassing 1,320 active projects.

Alberta Innovates works across sectors to fund, partner and enable entrepreneurship throughout the province. The corporation operates in 11 locations with more than one million sq ft of industrial testing and lab facilities and 600 acres of farmland. Alberta Innovates employs 589 highly skilled scientists, business and technical professionals and has an annual operating budget of \$250 million.

Learn how <u>Alberta Innovates</u>.

MEDIA CONTACTS

Dwayne Brunner, Senior Manager, Media &	Doris Kaufmann Woodcock, Senior Advisor
Strategic Community Relations	Marketing & Communications
Alberta Innovates	ATCO
Cell: 587-572-4091	Cell: 587-215-9115
<u>dwayne.brunner@albertainnovates.ca</u>	<u>doris.kaufmannwoodcock@atco.com</u>