



Government  
of Canada

Trade Commissioner  
Service

Gouvernement  
du Canada

Service des  
délégés commerciaux

Canada

# CANADA A GLOBAL LEADER IN HYDROGEN PRODUCTION

Canada is one of the largest hydrogen producers in the world. Canadian firms have developed the technologies to produce hydrogen cleanly and economically using fossil fuels, methanol, biomass, renewable energy sources such as solar, wind, hydroelectric or from industrial by-product waste hydrogen capture. To improve the use of renewable energy sources, Canadian-developed technology is using excess wind, solar or hydro power to produce hydrogen. The hydrogen may then power a fuel cell, when renewables are unavailable, or be fed into the natural gas grid for use beyond the generation site.



## ENBRIDGE GAS DISTRIBUTION AND HYDROGENICS

> [www.enbridgegas.com](http://www.enbridgegas.com) | > [hydrogenics.com](http://hydrogenics.com)

**Enbridge Gas Distribution** is Canada's largest natural gas distributor and one of the fastest growing natural gas companies in North America, actively promotes technologies that support the wise use of today's fossil fuels with higher efficiency solutions. Stationary fuel cells are one such technology.

Enbridge in partnership with **Hydrogenics** has been selected by the Independent Electricity System Operator (IESO) for Ontario for Grid Energy Storage. This Power-to-Gas project will deliver 2MW of storage capacity and be located in the Greater Toronto Area. Hydrogenics will supply the facility's next-generation PEM electrolyzers and is partnering with Enbridge Inc. to develop, build and operate the energy storage facility to provide regulation services.

- > **Canadian hydrogen and fuel cells foster the cleaner and more efficient use of fossil fuels**

Bringing leadership and innovative solutions to the world.

HYDROGEN AND  
FUEL CELLS

TRADE COMMISSIONER SERVICE (TCS)

## EXAMPLES OF INNOVATIVE COMPANIES INCLUDE:



### **QUADROGEN POWER SYSTEMS** > [www.quadrogen.com](http://www.quadrogen.com)

**Quadrogen Power Systems, Inc.** designs, builds, and installs high performance gas clean-up solutions for the renewable energy sector. Quadrogen provides world-class engineering and design services, including detailed techno-economic feasibility studies for industrial and institutional customers. Quadrogen's Quad-generation Project demonstrates the co-production of renewable electricity, heat, hydrogen, and greenhouse quality carbon dioxide (CO<sub>2</sub>) from the City of Vancouver's landfill gas.



### **HYDROGENICS** > [www.hydrogenics.com](http://www.hydrogenics.com)

**Hydrogenics** is the world's leading supplier of hydrogen fuel cell power systems and electrolyzers for on-site hydrogen generation with over 1,900 sites worldwide. Hydrogenics is pioneering Power-to-Gas development working with leading utilities worldwide. The company is also advancing the next generation PEM Electrolyzers to meet the future demands of Power-to-Gas system developers.

Hydrogenics was selected to join a consortium of European companies, including Air Liquide, for the €15 million HyBalance Power-to-Gas project in Denmark. The HyBalance setting is unique in demonstrating the multiple applications of Power-to-Gas technologies, including how hydrogen can be used in multiple high value markets such as industry and clean transportation, and the project will provide business models for these applications.



### **AIR PRODUCTS CANADA** > [www.airproducts.ca](http://www.airproducts.ca)

**Air Products** has more than 50 years of hydrogen experience and is on the forefront of hydrogen energy technology development. Air Products deployed its first hydrogen fueling station in 1993, and have developed an extensive patent portfolio related to hydrogen supply and dispensing technology. Air Products Canada supplies liquid and gaseous hydrogen as well as a broad portfolio of fueling infrastructure solutions.

### **NEXT HYDROGEN** > [www.nexthydrogen.com](http://www.nexthydrogen.com)

Next Hydrogen's is a leading global supplier of innovative on-site hydrogen generator solutions. Next Hydrogen provides green technology for industrial processes, transportation systems and energy systems for on-site hydrogen generation, creating up to 1 tonne of hydrogen per day from water and electricity. Next Hydrogen electrolyzers let you generate more clean hydrogen, faster, and at a significantly reduced cost.

**MORE FIRMS  
WITH HYDROGEN  
PRODUCTION  
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[www.advancedflowsystems.com](http://www.advancedflowsystems.com)
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[www.nuionic.com](http://www.nuionic.com)
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[www.luxfer.com](http://www.luxfer.com)
- > **Xebec Adsorption Inc**  
[www.xebecinc.com](http://www.xebecinc.com)
- > **Next Hydrogen**  
[www.nexthydrogen.com](http://www.nexthydrogen.com)



**THE CANADIAN HYDROGEN AND FUEL CELL ASSOCIATION**  
For more information about innovative Canadian hydrogen and fuel cells companies please visit > [www.chfca.ca](http://www.chfca.ca)

## CONNECT WITH US

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