



British Columbia Hydrogen Ecosystems Capabilities Guide

Final Guide

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Prepared for the Canadian Hydrogen Association

MNP



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1. Introduction

Background

British Columbia (BC) is recognised as a leading hydrogen jurisdiction both within Canada and internationally. It has a diverse ecosystem of organizations and businesses spanning the entire value chain from hydrogen production, electrolyser research and development, fuel cell (component) research, engineering and production, project developers and accelerators.

This guide highlights the capabilities of the BC hydrogen sector, providing a sector overview, featuring key companies, projects, innovations, and regional strengths across the hydrogen value chain, along with a forward-looking perspective on future growth and opportunities. It is intended to serve as an educational resource for both domestic and international buyers and investors, offering insights into the sector's current state, trends in revenue, employment, and project activity.

To develop this guide, the Canadian Hydrogen Association (CHA) commissioned MNP LLP (MNP), a Canadian tax and business advisory firm.

Approach

The following activities were carried out to inform this guide:

- Gathered publicly available data for organizations included in the guide, as well as data from other secondary sources and the S&P Capital IQ database.
- Conducted 25 key informant interviews with organizations across the provincial hydrogen sector to better understand their core technologies, operational characteristic and perceptions of current trends.
- Prepared a draft and final guide.

Structure of the Guide

The remaining sections of this guide are organized as follows:

- Section 2 provides an overview of the BC hydrogen sector.
- Section 3 profiles organizations involved with the BC hydrogen sector.
- Section 4 provides a future outlook for the sector
- Section 5 provides a brief conclusion.

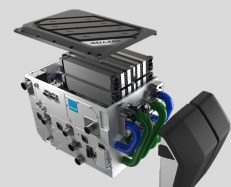
Limitations

The guide is provided for information purposes and is intended for general guidance only. It should not be regarded as comprehensive or a substitute for personalized, investment or business advice.

We have relied upon the completeness, accuracy and fair presentation of all information and data obtained from CHA, interviews and public sources believed to be reliable. The accuracy and reliability of the findings and opinions expressed in the guide are conditional upon the completeness, accuracy and fair presentation of the information underlying them. As a result, we caution readers not to rely upon any findings or opinions for business or investment purposes and disclaim any liability to any party who relies upon them as such.

BALLARD™

Ballard Power Systems is a global manufacturer of fuel cell power products based in British Columbia. For the past four decades, Ballard has developed innovative and performant PEM fuel cells for heavy-duty mobility applications such as bus, truck, rail and marine as well as stationary power systems. With over 4,500 fuel cell vehicles deployed, 200 million km on the road, and shipping over 1GW of fuel cell products, Ballard has proven that fuel cells work, last, and deliver an attractive value proposition. We are committed to supporting our customers through their journey towards a more sustainable planet; this is our promise.



2. BC's Role in Canada's Hydrogen Sector

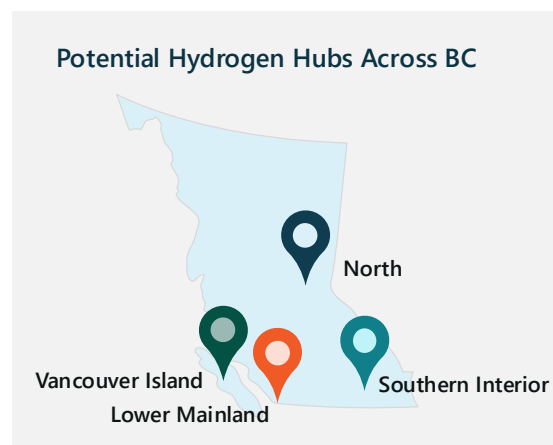
Overview

Canada is recognized as a global leader in hydrogen, home to the world's largest clean hydrogen production facility and ranking among the top 10 hydrogen producers worldwide.¹ Within this national landscape, BC plays an important role, with the largest cluster of hydrogen companies based in the province.² This concentration of companies makes BC a driving force in advancing hydrogen development, particularly in Western Canada. In addition to private sector companies, BC's hydrogen ecosystem includes government agencies, non-profits, and academic institutions. Together, these players are actively engaged across all areas of the hydrogen and fuel cell industry. Their activities include:

- Hydrogen production
- Processing
- Storage
- Transportation
- Fuel cell stack and system development
- Component and material manufacturing
- Testing infrastructure
- Research and development
- Standards creation

As BC strives to increasingly deploy clean technologies and foster its hydrogen sector, a focus has been placed on four potential hydrogen hubs across the province which include Vancouver Island, Lower Mainland, Northern BC, and the Southern interior (Figure 1). These hubs, would bring together hydrogen production and end-use application contributing to a balanced hydrogen market that also expands the local economy in hub locations.³

Figure 1: Potential Hydrogen Hubs Across BC.



¹ Invest in Canada. (n.d.). *Hydrogen*. <https://www.investcanada.ca/industries/hydrogen>

² Government of Canada. (2025, June 5). Government of Canada invests in British Columbia's hydrogen and fuel cell sector [News release]. Pacific Economic Development Canada. <https://www.canada.ca/en/pacific-economic-development/news/2025/06/government-of-canada-invests-in-british-columbias-hydrogen-and-fuel-cell-sector.html>

³ Foresight Canada. (n.d.). New reports map B.C.'s hydrogen potential for clean energy growth. Retrieved from <https://foresightcac.com/announcement/new-reports-map-bcs-hydrogen-potential-for-clean-energy-growth>

The Hydrogen Value Chain in BC

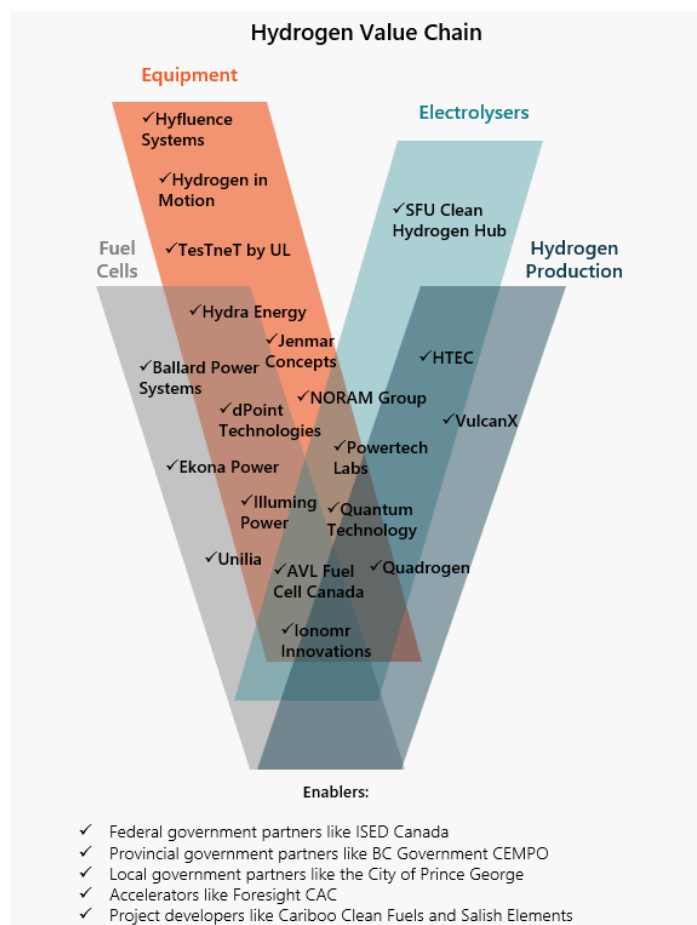
The hydrogen value chain in BC includes a diverse array of private sector, government, non-profit, and academic entities that are engaged in every aspect of the hydrogen sector as depicted in Figure 2. This includes hydrogen production, electrolyser research and development, fuel cell (component) research, engineering and production and equipment development such as components, storage, infrastructure and testing. The ecosystem also includes project developers like Cariboo Fuels Inc. and Salish Elements, together with accelerators like Foresight CAC that support the development of the hydrogen sector by convening key partners, conducting research and attracting investment.

Government organizations include the BC Government Clean Energy and Major Projects Office (CEMPO) which provides strategic support for clean energy and hydrogen projects, including funding programs, regulatory guidance, and policy development. Innovation, Science and Economic Development Canada (ISED), local governments and the Province of BC are working to create a policy environment that enables the development of a flourishing hydrogen sector in BC.

Key informant interviews indicated that an increasing number of companies in BC's hydrogen sector are becoming vertically integrated across the hydrogen value chain to promote sustainability of projects and offer customers integrated solutions.

Most companies interviewed have all or a substantial part of their operations based in BC, especially engineering and development of products. While some BC companies also produce in BC, others have manufacturing operations in countries such as the US, China, India and France due to lower cost or proximity to end customers. Similarly, most companies interviewed utilize a globalized supply chain procuring parts from the US, Asia or Europe as well as some parts that are supplied locally from BC or Canada.

Figure 2: Hydrogen Value Chain



Hydrogen Production

Within BC's hydrogen ecosystem, multiple organizations including companies, research institutions, and

Indigenous-led ventures are advancing hydrogen production and related technologies. Hydrogen production projects are the most common area where the BC Government's CEMPO provides support. For example, HTEC is building out hydrogen production hubs and infrastructure across BC while Ekona Power and VulcanX are developing methane pyrolysis technologies, enabling low-emission hydrogen and solid carbon production at competitive costs. Other noteworthy hydrogen production projects include:

- Cariboo Clean Fuels Inc. is advancing biomass-based hydrogen and e-methanol projects that are intended to support a hydrogen highway linking BC and Alberta.⁴ The projects include partnerships with municipalities and Indigenous communities.
- Green hydrogen production projects led by Salish Elements in partnership with First Nations, ensuring progress on addressing climate change and energy access for communities. Salish Elements' projects also aim to develop a trade corridor for clean hydrogen fuel across North America's West Coast from Los Angeles to Prince Rupert in support of decarbonizing the transportation sector.
- System integration, purification and liquefaction by Quantum Technology and Quadrogen Power Systems supporting both domestic use and export opportunities. Through innovative technology, Quantum Technology offers integrated systems to its large industrial customers that purify and liquefy hydrogen and provide storage solutions. Quadrogen Power Systems provides technology that purifies syn gases and enables utilization of hydrogen within existing industrial operations or as fuel for fuel cell vehicles.

Electrolysers

BC is also establishing itself as a global center for electrolyser innovation and deployment. For example, Simon Fraser University's Clean Hydrogen Hub is leading Canada's first large-scale anion exchange membrane (AEM) electrolyser demonstration and test site, supporting material innovation, system integration, and real-world validation for green hydrogen production.⁵ The site includes test stacks to test flooded cathode technology for hydrogen production and open space for testing other larger scale hydrogen equipment for academic and industry researchers. The site is also designed to be original equipment manufacturer (OEM)-agnostic and supports both domestic and international technology partners. In addition, HTEC and Ionomr are also developing and implementing electrolysers using a proton exchange membrane (PEM).

Fuel Cells

BC is home to multiple world leading fuel cell companies like Ballard Power Systems that anchor BC's hydrogen sector. As such, BC's fuel cell sector is an area of the value chain with significant activity. BC's fuel cell companies are, for example, specializing in advanced membrane electrode assembly (MEA) development, stack manufacturing, and engineering services for heavy-duty vehicles and industrial

⁴ Cariboo Clean Fuels Inc. *Building the Hydrogen Highway*. <https://cariboo-cf.com/projects>

⁵ MNP Primary Research Findings

applications. Fuel cell capabilities are also driven by companies such as:

- Unilia Fuel Cells focusing on MEA technology.
- AVL Fuel Cells specializing in engineering, prototyping and testing of fuel cells and electrolyzers.
- Illuming Power providing customized fuel cell engineering and manufacturing.

Equipment

Beyond fuel cells, BC has diverse capabilities in fuel cell component design and manufacturing as well as other hydrogen related equipment. For example, Ionomr Innovations is internationally recognized for its ion-exchange membranes and polymers, supplying critical components for both water electrolyzers and hydrogen fuel cells. The company collaborates with global OEMs such as Cummins, Siemens, and Ballard, and is expanding into CO₂ electrolysis and industrial applications. Other equipment capabilities are, for example, Hydrogen in Motion's nanomaterial-based hydrogen storage solutions or Hydra Energy's dual-fuel hydrogen-diesel technology for heavy-duty trucking. Additional examples include:

- **Refueling Equipment and Infrastructure.** Hyfluence is a BC company that specializes in the design, manufacturing and servicing of high-pressure hydrogen refuelling systems.
- **Test Labs.** BC benefits from a strong supply chain for custom components and testing infrastructure (e.g., Powertech Labs, TesTneT by UL) who provide hydrogen related testing services to ensure compliance with safety standards. These services include testing hydrogen components, material and special testing for research and development purposes. TesTneT's facilities also include test sites for gun fire and thermal shock testing of hydrogen cylinders. While customers include companies utilizing hydrogen in industry, automotive, transportation and stationary power use, TesTneT focuses on safety testing for cylinders used in hydrogen vehicles. Powertech Labs focuses on testing components of integrated products such as fuel systems.

BC's Advantages

BC offers a favourable environment for both established hydrogen organizations as well as emerging ventures. A combination of strategic advantages and regional assets underpins the province's hydrogen economy, including the following:



Clean, low-cost energy supply. BC has long had a strong supply of clean, low-cost electricity, primarily generated from hydroelectric sources.⁶ While future demand is expected to rise,⁷ it is this renewable energy foundation that enables the production of green

⁶ Government of British Columbia. (2021). *B.C. Hydrogen Strategy: A sustainable pathway for B.C.'s energy transition* (Final report). https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf

⁷ Government of British Columbia. (2024). *Powering our future: BC's clean energy strategy* (Final report). https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/community-energy-solutions/powering_our_future_-_bcs_clean_energy_strategy_2024.pdf

hydrogen with minimal carbon emissions, making it an attractive location for sustainable hydrogen development. To further support such projects, BC Hydro offers a Clean Industry and Innovation Rate which is a discounted power rate for seven years from standard industrial rates.⁸



Skilled workforce. Another benefit is BC's highly skilled and diverse workforce particularly for engineering and developing hydrogen production facilities, fuel cells and other hydrogen equipment. This workforce is supported by strong educational institutions like Simon Fraser University and the University of British Columbia. These institutions are involved in hydrogen projects like Simon Fraser University's Clean Hydrogen Hub or the University of British Columbia's Smart Hydrogen Energy District that support skill development for students and researchers. The strong presence of hydrogen companies across the province further enhances the local talent pool. In addition, program advisory committees are helping shape programs and work-integrated learning initiatives, ensuring BC continues to develop a workforce aligned with the needs of the hydrogen sector.⁹



Collaborative Hydrogen Ecosystem. Hydrogen companies in BC have built a strong network and often work collaboratively to drive innovation and advocate for the sector. This integrated network fosters knowledge sharing, streamlines project development and strengthens supply chain resilience positioning the province as a hub for clean energy leadership and global partnerships.



Access to Global Markets. BC's location on the west coast of Canada offers direct access to key global markets, particularly in East Asia where countries like China, Japan, and South Korea are investing in hydrogen as part of their clean energy transitions.¹⁰ With deep-water ports and established trade infrastructure, BC is well-positioned to export clean hydrogen and related technologies efficiently.



Supportive policy environment. The policy environment for the hydrogen sector in BC remains supportive, backed by clear climate commitments, strategic funding programs, and regulatory frameworks that encourage innovation and investment at the provincial and federal level. Canada's Hydrogen Strategy¹¹ and BC's CleanBC plan (including BC's Hydrogen Strategy¹²) provide long-term vision and financial incentives such as the Low Carbon Fuel Standard to accelerate clean hydrogen production, infrastructure, and adoption.

⁸ BC Hydro. (2024, May 28). *Industrial electrification rates*. <https://app.bchydro.com/accounts-billing/rates-energy-use/electricity-rates/electrification-rates.html>

⁹ Government of British Columbia. (2021). *B.C. Hydrogen Strategy: A sustainable pathway for B.C.'s energy transition* (Final report). https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf

¹⁰ International Energy Agency. (2024). *Hydrogen demand* (in Global Hydrogen Review 2024). <https://www.iea.org/reports/global-hydrogen-review-2024/hydrogen-demand>

¹¹ Natural Resources Canada. (2020). *Hydrogen strategy for Canada: Clean, low-carbon, accessible* [PDF]. Government of Canada.

¹² Government of British Columbia. (2021). *B.C. Hydrogen Strategy: A sustainable pathway for B.C.'s energy transition* [PDF]. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf

British Columbia Hydrogen Sector Spotlight

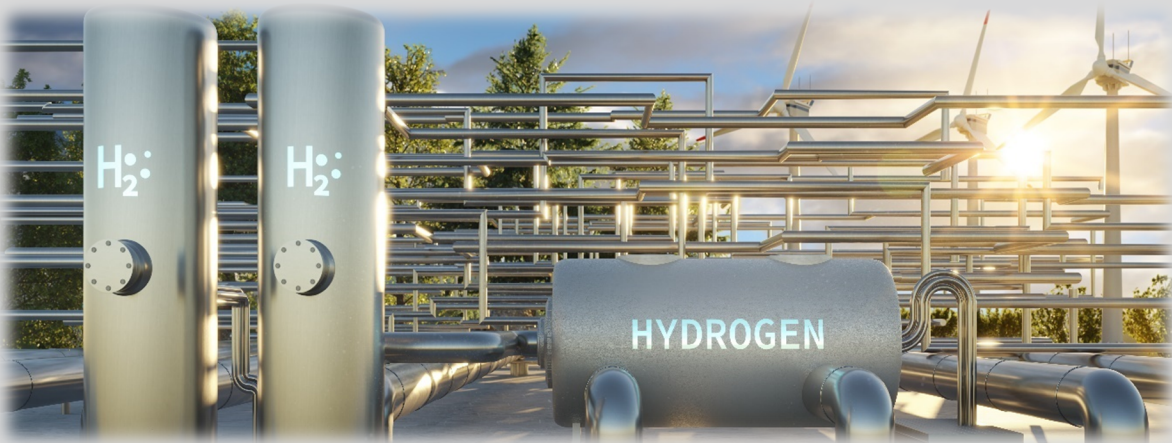
How is the Government of British Columbia supporting the province's hydrogen future?

Our world is transitioning to clean energy, and hydrogen can play a critical role in enabling industries and jurisdictions to meet their greenhouse gas reduction targets. BC is home to the largest hydrogen and fuel cell sector in Canada.

As the first Canadian province to release a hydrogen strategy in July 2021, BC is committed to growing its hydrogen economy. BC is well positioned to do so, with its abundant natural resources, commitment to reconciliation with Indigenous Peoples, long history of innovation in hydrogen fuel cells and technology, and existing fuelling infrastructure.

BC also offers an opportunity to produce low-carbon hydrogen for local use and the potential to supply the global market in key sectors such as aviation and maritime shipping, thanks to the province's low-cost, clean and renewable power, natural gas reserves, carbon sequestration potential, and proximity to key Asia-Pacific markets. Whether you are looking to invest in growing the province's hydrogen production capabilities and hydrogen technologies, or seeking products and services for your own jurisdiction, BC is the place to invest in the future of hydrogen as a clean energy carrier.

BC has all the elements to support a growing hydrogen sector, from a clear regulatory framework, supportive provincial policies and access to markets, to strong collaborative partnerships and a stable investment climate. Learn more about opportunities in BC's hydrogen sector at BritishColumbia.ca.



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Supported by the Province of British Columbia

Sector Trends

As BC's hydrogen sector continues to evolve, several key trends are shaping its development and future direction. Notable trends include:



Increased focus on fuel cell development for heavy-duty vehicles and machinery. The sector has seen a strategic shift toward deploying fuel cell technologies in heavy-duty vehicles and industrial machinery, where electrification faces limitations according to interview participants. Hydrogen offers advantages such as fast refueling, high energy density, and performance reliability in harsh conditions, making it well-suited for long-haul trucking, off-road equipment, and freight transport.¹³ However, realizing this potential requires overcoming key barriers, including expanding refueling infrastructure along major transportation corridors. Innovation in dual-fuel technology is emerging as a bridging technology for wider adoption of hydrogen fuel in the trucking industry. This shift is reflected in BC's hydrogen strategy and industry investments, which increasingly prioritize fuel cell integration in sectors that demand power, endurance, and flexibility beyond what electric vehicles can deliver.¹⁴



Move towards vertical integration across the value chain to bridge the gap between supply and demand. BC companies that participated in interviews frequently shared that they are increasingly diversifying their portfolio from production infrastructure, distribution networks, and end-use applications to offer integrated hydrogen solutions. They shared that by integrating supply and demand for hydrogen in project design, projects are more likely to be successful as key challenges like off-take certainty are addressed. For example, HTEC is creating a self-sustaining ecosystem that aligns supply with regional demand with its H₂ Gateway project.¹⁵

¹³ Silverstein, K. (2024, December 19). *Long-haul hydrogen-fueled trucks are taking a worthwhile journey*. Forbes. <https://www.forbes.com/sites/kensilverstein/2024/12/19/long-haul-hydrogen-fueled-trucks-are-taking-a-worthwhile-journey/>

¹⁴ Government of British Columbia. (2021). *B.C. Hydrogen Strategy: A sustainable pathway for B.C.'s energy transition* [PDF]. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bc_hydrogen_strategy_final.pdf

¹⁵ HTEC. (n.d.). *H₂ Gateway: Driving the adoption of hydrogen as a transportation fuel in targeted regional hubs*. <https://www.htec.ca/h2gateway/>



Increased focus on smaller-scale hydrogen production. Interviewees shared that the hydrogen sector is increasingly prioritizing domestic hydrogen production through strategic, small-scale projects that bring together multiple stakeholders and funding sources. This shift reflects a growing recognition that decentralized, collaborative models, often involving Indigenous partners, local governments, and private investors, can accelerate deployment while balancing risk and resource constraints. These multi-funder initiatives are proving to be more viable and adaptable, especially in regions where infrastructure is still emerging, and they offer a scalable pathway to meet both domestic energy needs and export ambitions.

Indigenous Partnerships

Xaxli'p Development Corporation and Salish Elements have announced a **partnership to create a 25MW green hydrogen production utility.** The project was awarded \$4.5 Million from Natural Resources Canada Clean Fuels Fund.



Growing emphasis on scaling proven technologies. BC continues to be a global leader in fuel cell and hydrogen technology innovation, particularly in PEM systems as developed by companies like Ballard, AVL or Ionomr. There is optimism that hydrogen will follow a similar cost-reduction path as solar and wind energy, driven by advances in electrolyser efficiency and fuel cell performance. To reduce costs and make hydrogen more economically feasible, interviewees shared that emphasis on scaling proven technologies is a strategic objective.



Continued export orientation and ambition by BC hydrogen companies. BC's hydrogen sector remains strongly export-oriented, leveraging the province's clean energy resources, proximity to key global markets, and established infrastructure to position itself as a leading supplier of hydrogen and fuel cell technologies. Companies interviewed are actively pursuing international partnerships, particularly with the European Union (EU), United States (US) and east Asian partners.

Investment

Private Investments and Mergers and Acquisitions (M&A)

Over the past decade (i.e., 2015-2025), BC's hydrogen sector has experienced momentum in both domestic and foreign investment through private placements¹⁶ and M&A activity. BC hydrogen companies have attracted global capital, with over 100 public transactions, totaling more than \$500 million USD in disclosed deal value between 2015-2025.¹⁷ In 2023, research, development, and demonstration (RD&D) investments in hydrogen were highest in Western Canada, where BC represents a substantial share of the activity.¹⁸

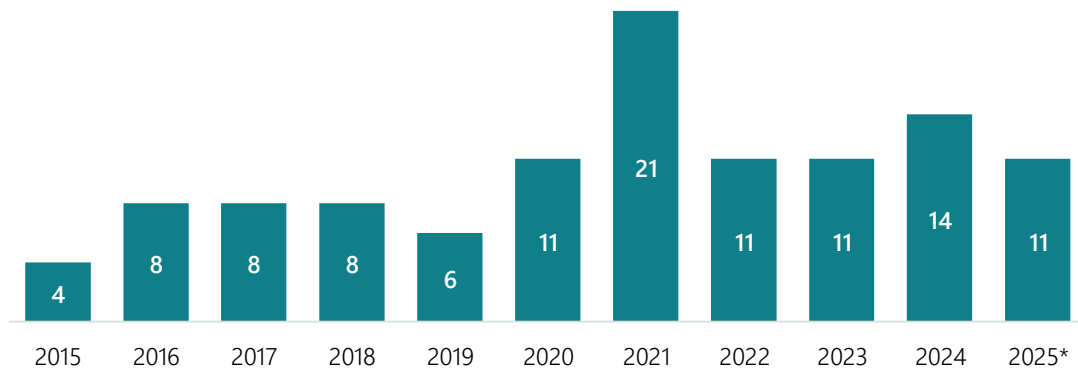
¹⁶ Defined as any transactions where a company raises debt or equity in the private markets.

¹⁷ S&P Capital IQ

¹⁸ Canada H₂. (2024, October). Sector profile [PDF]. <https://canadah2.ca/wp-content/uploads/2024/10/Sector-Profile-1.pdf>

Figure 3 illustrates the annual transaction count for hydrogen-related private placements and M&A in BC between 2015 and 2025. The data shows a steady increase in activity from 2015 through 2018, followed by a notable surge in investments in 2021, which saw a peak of 21 transactions. While transaction volumes moderated in subsequent years, they have remained robust, with 11 to 14 deals annually from 2022 through 2025. This trend highlights both the sector’s rapid growth phase and its sustained appeal to investors.

Figure 3: Number of Transactions (Private Placements and M&A) in BC’s Hydrogen Sector, 2015-2025



Source: S&P Capital IQ

*Between January 1 and September 15, 2025

Continued Investment in BC’s Hydrogen Infrastructure

Foreign direct investment remains strong, with repeat investors from Europe, Asia, and the US such as Chevron Technology Ventures, Mitsubishi Corporation, and Samsung Venture Investment playing a key role in scaling technology companies and advancing fuel cell innovation. At the same time, domestic investors like BDC Capital and NGIF Capital Corporation have supported early-stage growth in the sector, often co-investing alongside international partners. Technology companies continue to attract the majority of investment, while most production-related investments are smaller or involve domestic capital, with some exceptions (e.g., Mitsui & Co. and Mitsubishi Corp. investing in production and infrastructure).¹⁹

Public Investments

The federal and provincial government have also invested in BC’s hydrogen sector through grant programs, investments in hydrogen projects and supporting sector enablers such as the CHA. The CleanBC Go Electric Hydrogen Fuelling Infrastructure Program is one program aimed to reduce barriers and increase adoption of hydrogen vehicles by providing funding for construction of hydrogen fuelling

¹⁹ S&P Capital IQ

stations.²⁰ Similarly, the Province is supporting HTEC’s H2 Gateway project which aims to create 18 new hydrogen refuelling stations in BC through the Low Carbon Fuel Standard valued at \$133 million.²¹

The federal government, through Pacific Economic Development Canada (PacifiCan), has supported Simon Fraser University’s Clean Hydrogen Hub through an investment of \$9.4 million in 2024. In June 2025, PacifiCan announced a \$466,956 investment in the CHA to support its efforts in attracting investment and identifying export opportunities for hydrogen companies in BC.²²

Consolidation of BC’s Hydrogen Industry

BC’s hydrogen sector has experienced a period of consolidation and realignment, as companies adapt to changing market conditions and a more measured pace of growth. Several companies noted that after a phase of rapid expansion and high expectations, the sector is now seeing a “reset” with companies resizing, merging, or pivoting to focus on their core strengths and most viable market segments. This has resulted in an ecosystem with more resilient companies who are better positioned to withstand market fluctuations. BC’s hydrogen sector remains a recognized center of excellence, with a strong base of technical talent and a collaborative spirit that continues to drive innovation and position the province for long-term leadership in clean hydrogen technologies.

Deloitte - Accelerating Canada’s Clean Hydrogen Future

Deloitte plays a leading role in advancing Canada’s clean hydrogen economy through comprehensive technical, financial, and tax advisory services. Our national Clean Economy ITC practice supports projects across Canada, with a strong presence in British Columbia’s growing hydrogen ecosystem. We specialize in developing NRCan-compliant project plans, carbon-intensity modelling, Clean Hydrogen Investment Tax Credit (ITC) estimation, partnership and tax structuring, claim preparation, audit defence, deal review, techno-economic analysis, and identifying discretionary funding opportunities. Deloitte helps organizations optimize funding, reduce risk, and accelerate clean hydrogen deployment nationwide.



²⁰ Government of British Columbia. (2025, April 30). *Go Electric hydrogen fuelling infrastructure* [Web page]. <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/clean-transportation-policies-programs/clean-energy-vehicle-program/dcf-program/hydrogen-fuelling>

²¹ Government of British Columbia. (2024). [News release 2024EMLI0028-000807]. <https://news.gov.bc.ca/releases/2024EMLI0028-000807>

²² Government of Canada. (2025, June 5). *Government of Canada invests in British Columbia’s hydrogen and fuel cell sector*. <https://www.canada.ca/en/pacific-economic-development/news/2025/06/government-of-canada-invests-in-british-columbias-hydrogen-and-fuel-cell-sector.html>

3. Organization Profiles

The following provides short profiles of organizations that participated in interviews, with the BC companies listed first, followed by non-profits and government and public organizations.

The following icons indicate each organization's positing in the hydrogen value chain:



Fuel Cell



Equipment



Electrolysers



Hydrogen Production





Enablers




Toyota believes hydrogen will play an important role in a multi-technology approach to carbon reduction in Canada. In 2019, we became the first automaker to bring hydrogen fuel cell electric vehicles – or “FCEVs” - to Canada en masse. But light-duty vehicles like the Mirai are only part of our hydrogen plan. We believe hydrogen fuel cell technology could be a zero-emission solution across a broad spectrum of vehicle types, from heavy-duty, to medium-duty to light-duty, and we're proud to be part of Canada's growing hydrogen community.





| | | | | |
|--|--|-------------------------------------|--|--|
| | | AVL Fuel Cell Canada | Category: BC Company | |
| <p>Company Description</p> <p>AVL Fuel Cell Canada (“AVL FCC”) designs PEM fuel cell stacks for all applications, including automotive, heavy duty, stationary power, and marine transportation. Additionally, AVL FCC designs PEM & AEM Electrolyzer stacks for green hydrogen generation solutions. AVL FCC is owned by its Austrian parent company, AVL List GmbH, which is the world’s largest independent company for the development, simulation and testing of powertrain systems.</p> <p>AVL FCC is the company’s global center of excellence in fuel cell and electrolyzer stack design. FCC custom-engineers fuel cell and electrolyzer stacks to meet customer and application-specific requirements and offers a wide range of Fuel Cell and Electrolyzer stack-related services from consulting via benchmarking, through to validation testing and failure analysis. AVL FCC also prototypes stacks, but does not commercially manufacture and sell stacks.</p> | <p>Organization Type</p> Private Company | <p>Year Established</p> 2018 | <p>Sub-Sector</p> Fuel Cell & Electrolyzer Engineering and Testing | |
| | <p>Website</p> www.avl.com/en-ca/locations/avl-fuel-cell-canada-inc | | | |
| | | | <p>Employment (2025)</p> 45 total (all in BC) | <p>Revenues (2025)</p> Confidential |
| | <p>General Contact</p> info.ca@avl.com | | <p>Personal Contact</p> Jose Rubio, Managing Director jose.rubio@avl.com | |
| <p>Supply Chain Information</p> <p>AVL FCC works with suppliers around the globe, particularly in Europe, the US, and Asia as well as in BC for a small number of components.</p> <p>AVL purchases components for prototypes, in-house testing, and select components to be used in their clients’ products.</p> | | | | |
| <p>Major Projects</p> <p>Major projects include full fuel cell and electrolyzer stack development services.</p> | | | | |
| <p>Partnerships and Collaboration</p> <p>AVL FCC collaborates with partners around the globe with the biggest collaboration partners located in Germany, Japan and China and is interested in pursuing further partnerships.</p> | | | | |
| <p>Data Sources</p> 2022 Canadian Hydrogen Sector Profile, Interview, website | | | | |

| | | | | |
|---|---|--|---------------------------------------|---|
|  | Ballard Power Systems | | Category: BC Company |  |
| Company Description Ballard develops and manufactures PEM fuel cell products for electrification of mobility, including buses, commercial trucks, trains, marine vessels, forklifts and stationary power. Today, Ballard fuel cell systems power more than 2,300 transit buses worldwide, collectively accumulating over 250 million kilometers of real-world operation, as well as 10MW of stationary power applications. This proven track record demonstrates the reliability, scalability, and performance of fuel cells in demanding commercial environments. | Organization Type | Year Established | | |
| | Public Company | 1979 | | |
| | Sub-Sector | Website | | |
| | Fuel cell manufacturer | www.ballard.com | Employment (2025) | Revenues (2024) |
| | 650 in BC | \$60,731,000 (USD) | | |
| | General Contact | | | |
| | https://www.ballard.com/connect-with-a-fuel-cell-expert/ | | | |
| Supply Chain Information | | | | |
| Ballard has a globalized supply chain and procures items from North America, Europe and Asia. | | | | |
| Major Projects | | | | |
| Ballard has deployed fuel cells in bus, rail, stationary, truck and marine applications globally. | | | | |
| Partnerships and Collaboration | | | | |
| Ballard collaborates with global OEMs and integrators partners including New Flyer, Solaris, Wrightbus, Siemens, CPCK, Vertiv, Geopura and Catarpillar. | | | | |
| Data Sources | | | | |
| 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | |



| | | | | |
|---|---|--------------------------|---|---|
| BC RESEARCH | | BC Research Inc. (BCRI) | Category: BC Company |  |
| Company Description | <p>BC Research Inc. (BCRI), is the R&D and innovation division of the NORAM Group, a vertically integrated group of companies under common Canadian ownership that specialize in the development, scale-up and full-scale commercialization of chemical processes with focus on Cleantech. BCRI provides a wide range of services from technical consulting, assistance in technology development, development of custom pilot and demonstration plants, engineering and deployment of turn-key chemical plants, to full commercialization of Cleantech. Through BC Research, companies can also access the whole group of companies that together provide a vertically integrated technology development and commercialization ecosystem. Headquartered in downtown Vancouver, British Columbia, BCRI operates primarily from their "Technology Innovation and Commercialization Centre" on Mitchell Island in the city of Richmond, BC.</p> | Organization Type | Year Established | |
| | | Private Company | 2010 | |
| | | Sub-Sector | Website | |
| | | Technology firm | https://bcri.ca/ | |
| | | Employment (2025) | Revenues (2025) | |
| Confidential. | Confidential | | | |
| General Contact | andresmb@bcri.ca | | | |
| Personal Contact | Andres Mahecha-Botero, Ph.D., P.Eng. | | | |
| | andresmb@bcri.ca | | | |
| Supply Chain Information | | | | |
| The NORAM Group has a global supply chain and works with Canadian companies as well. | | | | |
| Major Projects | | | | |
| Please see: https://bcri.ca/success-stories/ | | | | |
| Partnerships and Collaboration | | | | |
| BCRI is open to collaboration worldwide | | | | |
| https://bcri.ca/about-us/ | | | | |
| Data Sources | | | | |
| 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | |

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|--|--------------------------------|---|---------------------------------------|--|
| | Cariboo Clean Fuels Inc | | Category: BC Company | |
| Company Description Cariboo Clean Fuels is a clean energy project developer, focusing on hydrogen and other alternative fuels for mobility, industrial, and natural gas blending applications. Cariboo Clean Fuels partners with First Nations and municipalities to advance projects across the hydrogen value chain, including production, dual-fuel mobility, and e-methanol initiatives in British Columbia. | Organization Type | Year Established | | |
| | Private Company | 2019 | | |
| | Sub-Sector | Website | | |
| | Project Developer | https://cariboo-cf.com/ | | |
| | Employment (2025) | Revenues (2025) | | |
| | 6 | Pre-revenue | | |
| General Contact | | | | |
| Contact Form: https://cariboo-cf.com/ | | | | |
| Personal Contact | | | | |
| Bob Blatter, Director/CEO | | | | |
| bob.blattler@cariboo-cf.com | | | | |
| Supply Chain Information | | | | |
| Cariboo Clean Fuels works primarily with Canadian based engineering firms and some US and international organizations. | | | | |
| Major Projects | | | | |
| One of Cariboo Clean Fuels' major projects is a project to generate hydrogen based on biomass generation in BC's interior. | | | | |
| Partnerships and Collaboration | | | | |
| Cariboo Clean Fuels is undertaking a joint venture with a US partner and is always interested in pursuing further partnerships especially with companies working with new technologies. | | | | |
| Data Sources | | | | |
| Interview, website | | | | |

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| | | dPoint Technologies (CORE Energy) | Category: BC Company | |
| Company Description dPoint Technologies specializes in manufacturing humidifier components for the hydrogen sector, focusing on fuel cell component manufacturing. dPoint Technologies is known for its proprietary high-performance membranes, which are used in humidifiers sold to OEMs. The company has a strong presence in Vancouver, where all fuel cell humidifier production takes place. Over the years, dPoint Technologies has evolved to offer custom solutions to its customers, working closely with them to develop products that meet their specific needs. The company is part of the larger CORE Energy group. | Organization Type Private Company | Year Established 2004 | | |
| | Sub-Sector Fuel cell components | Website https://dpoint.ca/ | | |
| | Employment (2025) Confidential | Revenues (2025) Confidential | | |
| | General Contact dpoint.ca/contact/ | | | |
| | Personal Contact Jonathan Chia, Technical Sales and Business Development Lead jonathan.chia@core.life | | | |
| Supply Chain Information dPoint Technologies has a globalized supply chain. | | | | |
| Major Projects Major projects include material handling, automotive, and aerospace projects. | | | | |
| Partnerships and Collaboration dPoint collaborates with its customers to ensure solutions are custom fit. The company also collaborates with local partners such as the University of British Columbia, Simon Fraser University and federal government organizations. | | | | |
| Data Sources 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | |

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|  | | Ekona Power | Category: BC Company |  | | |
| Company Description <p>Ekona Power (Ekona) is developing a methane pyrolysis solution for low-cost and clean industrial-scale hydrogen and carbon black production. Ekona’s xCaliber™ reactor converts natural gas feedstock into hydrogen and solid carbon, which supports the reduction of greenhouse gas emissions when compared with conventional steam methane reforming technology and carbon black production processes. Ekona’s unique reactor design does not require water or electricity for its operation and can be deployed wherever natural gas infrastructure exists. Ekona’s solution will enable industrial partners (refineries, ammonia and chemical plants, carbon black plants) to produce large-scale, clean hydrogen and carbon at costs on par or better than hydrogen and carbon from incumbent process. Ekona’s technology provides a platform for cost-effective decarbonization of natural gas delivered either by pipeline or LNG supply.</p> | Organization Type Private Company | Year Established 2017 | | | | |
| | Sub-Sector Hydrogen producer | Website www.ekonapower.com | | | | |
| | Employment (2025) 55 | Revenues (2025) Confidential | | | | |
| | General Contact info@ekonapower.com | | | | | |
| | Personal Contact Rachel Paterson, Director Government Relations rachel.paterson@ekonapower.com | | | | | |
| Supply Chain Information <p>Ekona’s methane pyrolysis technology – including the xCaliber reactor – is designed in Ekona’s Burnaby headquarters. Apart from the proprietary, custom-built xCaliber reactor, balance-of-plant equipment is industry standard and sourced from vendors all over the world, including from BC.</p> | | | | | | |
| Major Projects <p>Work on the Gen2 Burnaby Pilot is well underway. It will help Ekona validate performance metrics as it works to demonstrate readiness for commercial deployment. The pilot program will focus on:</p> <ul style="list-style-type: none"> • Reactor efficiency and stability under sustained operation • Expansion of our carbon program, including the integration of carbon handling systems for downstream processes • Carbon black quality and yield • Hydrogen-rich syngas production and composition <p>Clean carbon black production is central to our strategy. The Gen2 Burnaby Pilot will validate continuous production and includes a state-of-the-art carbon test facility and integrated handling systems for commercial-grade output. We’ve already begun assembling the Gen2 reactor and will integrate balance of plant and carbon handling systems in preparation for commissioning in the first quarter of 2026.</p> | | | | | | |
| Partnerships and Collaboration <p>Ekona conducts research in collaboration with Canadian research agencies like the National Research Council and is open to further collaboration with national and international partners. Early-stage commercial engagement is underway both with investors and non-investors looking for a cost-effective way to decarbonize their businesses.</p> | | | | | | |
| Data Sources 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | | | |

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| | | Greenlight Innovation | Category: BC Company | |
| Company Description Greenlight was founded in 1992 to supply test equipment to enable the development of hydrogen fuel cell and electrolysis technology. Its core products are cell and stack test stations for PEM, alkaline, AEM & solid oxide fuel cells and electrolysers. Greenlight develops its own process control software, power electronics and data acquisition systems. It provides engineering design & manufacturing services from our head office in Burnaby, BC, and technical support from satellite offices in Asia, Europe, Eastern and Western Canada. We have supplied over 2000 test stations across six continents to a wide range of customer types: research institutes, cell/stack developers, industrials, and automotives. | Organization Type Private Company | Year Established 1992 | | |
| | Sub-Sector Hydrogen test equipment, power electronics | Website https://www.greenlightinnovation.com/ | | |
| | Employment (2025) ~200 | Revenues (2025) Confidential | | |
| | General Contact sales@greenlightinnovation.com | | | |
| | Personal Contact support@greenlightinnovation.com | | | |
| Supply Chain Information Greenlight has a global supply chain and works with equipment available from OEMs. | | | | |
| Major Projects This information was not available. | | | | |
| Partnerships and Collaboration Greenlight is closely partnered with Austrian mobility engineering company AVL List GmbH. We collaborate with Canadian and international universities and research labs to continually improve our software, electronics, and testing capabilities. | | | | |
| Data Sources Information provided by Greenlight Innovation, website | | | | |

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|  | HTEC | | Category: BC Company |  |
| <p>Company Description</p> <p>HTEC delivers hydrogen infrastructure across the hydrogen value chain. Starting with commercial refueling stations, HTEC has since expanded to build hydrogen production facilities and offer vehicle leasing services, making it easier for individuals and businesses to use fuel cell electric trucks. The company also develops, builds, owns, and operates hydrogen infrastructure, and provides engineering services to transit businesses.</p> <p>HTEC's primary focus is on mobility within the hydrogen value chain, including the production, storage, distribution, and end-use applications of hydrogen. The company is actively involved in building a network of fueling stations, with strategic funding from the Canada Infrastructure Bank to expand its operations in Metro Vancouver, Vancouver Island, and other regions.</p> | Organization Type | Year Established | | |
| | Sub-Sector | Website | | |
| | Employment (2025) | Revenues (2025) | | |
| | General Contact info@htec.ca | | Personal Contact Sabina Russel, VP Clean Fuel Business srussell@htec.ca | |
| <p>Supply Chain Information</p> <p>HTEC has a globalized supply chain and works with equipment available from OEMs.</p> | | | | |
| <p>Major Projects</p> <p>HTEC received \$337 Million in funding from the Canadian Infrastructure Bank in 2024 to build a network of refueling stations across BC and Alberta focusing on BC's regional hydrogen hubs within the province.</p> | | | | |
| <p>Partnerships and Collaboration</p> <p>HTEC collaborates with various local and international organizations, including equipment OEMs, local universities, and strategic partners, to advance hydrogen technology and infrastructure. The company is interested in pursuing further collaborations as it undertakes bigger capital projects.</p> | | | | |
| <p>Data Sources</p> <p>Interview, S&P Capital IQ, website</p> | | | | |

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| | | Hydra Energy Corporation | | Category: BC Company | |
| Company Description Hydra Energy, focuses on developing hydrogen-diesel co-combustion technology. Their primary goal is to address the significant pollution caused by heavy-duty trucking and transportation by converting diesel trucks to run on both diesel and hydrogen. This dual-fuel technology not only reduces emissions but also creates scalable demand for hydrogen, justifying the development of hydrogen infrastructure. Alongside their hydrogen-diesel co-combustion technology, Hydra is also developing their own Hydrogen-as-a-Service refueling stations in Northern British Columbia. This model connects hydrogen supply directly with demand, offering fleets a reliable decarbonization solution with minimal upfront costs. | Organization Type Private Company | Year Established 2012 | | | |
| | Sub-Sector Sector advisory | Website https://www.hydraenergy.com/ | | | |
| | Employment (2025) 15 | Revenues (2025) >\$1,000,000 | | | |
| | General Contact info@hydra-energy.ca | | | | |
| Supply Chain Information Hydra is a supplier and manufacturer of proprietary hydrogen-diesel co-combustion technology in Canada and Globally. Hydra’s technology is made in Canada using components made in Canada, Europe, and the USA. Along with their co-combustion conversion kits, Hydra also acts as a project developer for hydrogen refueling stations using components from global sources. | | | | | |
| Major Projects <p> Prince Rupert Integrated Marketplace (2024-2026)- Hydra Energy has been chosen to participate in a real-world pilot project to test its hydrogen-diesel co-combustion technology on heavy-duty trucks operating at the Port of Prince Rupert. Hydra was awarded to be the project developer for the installation and commissioning of the necessary hydrogen refuelling infrastructure. The pilot will demonstrate the performance, reliability, and emissions reduction potential of Hydra’s technology in a demanding, high-mileage logistics environment. </p> <p> AMTA Hydrogen Vehicle Demonstration (2022-2024) - Through fleet trials facilitated by the AMTA with several Alberta companies, Hydra’s co-combustion technology was tested against various Hydrogen mobility technologies. </p> | | | | | |
| Partnerships and Collaboration Hydra is interested in partnership opportunities with low-carbon hydrogen suppliers looking for reliable demand and fleets looking to decarbonize their operations. Hydra Energy frequently collaborates with post-secondary institutions in BC and Alberta such as the University of British Columbia, Simon Fraser University, University of Alberta, and BC Institute of Technology. | | | | | |
| Data Sources Interview, S&P Capital IQ, website | | | | | |

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| | | Hydrogen in Motion (H2M) | | Category: BC Company | |
| Company Description Hydrogen In Motion (H2M) is redefining hydrogen storage with a proprietary nanomaterial that absorbs hydrogen at ambient temperature and just 50 bar. This breakthrough enables lightweight, conformable tanks that unlock hydrogen for everything from drones and portable power to heavy-duty mobility, marine systems, and large-scale hydrogen storage and transport. Building on this core technology, H2M's Infrastructure-Independent Energy (IIE) platform integrates onboard hydrogen generation, storage, and power delivery—creating a deployable, infrastructure-free energy system for remote, maritime, and grid-constrained environments. By eliminating the traditional barriers of high pressure, cryogenics, rigid tanks, and costly fueling infrastructure, H2M accelerates hydrogen adoption across mobility, industry, and utility-scale storage and transport of hydrogen bringing the hydrogen economy accessible today. | Organization Type Private Company | Year Established 2014 | | | |
| | Sub-Sector Storage and production | Website www.hydrogeninmotion.com | | | |
| | Employment (2025) 15 | Revenues (2025) Confidential | | | |
| | General Contact info@hydrogeninmotion.com | | | | |
| | Personal Contact Grace Quan, Chief Executive Officer grace.quan@hydrogeninmotion.com | | | | |
| Supply Chain Information H2M maintains a diversified and resilient supply chain that supports both prototype development and commercial-scale production. The company sources the majority of its specialized equipment and components from trusted suppliers in China, Quebec, and Alberta, ensuring access to high-quality manufacturing capabilities and competitive lead times. Additional materials and services are procured through British Columbia-based suppliers, strengthening local industry participation and supporting regional economic development. This blended supply chain approach enables H2M to balance cost efficiency, technical performance, and supply security while scaling its hydrogen storage and IIE system technologies for global markets. | | | | | |
| Major Projects NATO DIANA Hydrogen-Powered UAV Program - H2M is leading a breakthrough initiative under NATO's Defence Innovation Accelerator for the North Atlantic (DIANA), developing a next-generation hydrogen-powered unmanned aerial vehicle (UAV) that demonstrates the advantages of low-pressure, ambient-temperature hydrogen storage. The project integrates H2M's proprietary nanomaterial tanks with advanced UAV platforms to deliver dramatically extended flight endurance, rapid refueling, and enhanced operational resilience. This program showcases hydrogen's potential to outperform batteries in mission-critical applications—enabling longer range, heavier payloads, and reliable performance in harsh environments. The NATO DIANA project also serves as a proving ground for H2M's IIE system, validating modular hydrogen generation and storage solutions that can be deployed in remote, off-grid, or contested settings. By advancing hydrogen propulsion for UAVs, H2M is helping shape the future of dual-use energy and mobility technologies across defence, emergency response, environmental monitoring, and commercial operations. | | | | | |



Hydrogen in Motion (H2M)

Category:
BC Company





Partnerships and Collaboration

H2M collaborates with a broad network of domestic and international partners to accelerate hydrogen innovation across mobility, energy, and industrial sectors. Current partnerships include leading organizations such as Ballard, the Hydrogen Research Centre Austria (HyCentA), and several OEMs advancing next-generation mobility solutions. H2M also works closely with post-secondary institutions within Canada and abroad to support research, talent development, and applied testing.



In Europe, H2M participates in a French motorsport-focused consortium led by BOSCHE, bringing together high-performance engineering teams to demonstrate how low-pressure hydrogen storage can enable longer endurance, rapid refueling, and competitive performance in demanding racing environments. H2M is also engaged with partners across sectors in Canada, Germany and Europe, including collaborators from BASF, the shipbuilding sector, and the oil and gas industry. These partnerships explore hydrogen integration in heavy transport, marine systems, industrial operations, and large-scale energy applications. Through these collaborations, H2M contributes its proprietary storage technology while gaining access to advanced testing environments, global supply chains, and commercialization pathways. The company continues to pursue new partnerships that expand the reach and impact of its technology across mobility, energy, and industrial markets.

Data Sources



Interview, S&P Capital IQ, website



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|  | | Hyfluence Systems Corp. | Category: BC Company  |
| Company Description Hyfluence Systems specializes in designing, manufacturing, and servicing its line of hydrogen refueling equipment and related systems within North America. Refueling applications addressed include heavy-duty trucks and buses, cars, rail, marine and off-road equipment. Hyfluence Systems has delivered multiple truck and bus fueling systems, including the largest refueling installation in southern California. Hyfluence operates an R&D and manufacturing facility in Burnaby, BC. Primary customer segments include developers and operators of refueling stations and public or private fleet operators. | Organization Type Private Company | Year Established 2022 | |
| | Sub-Sector Hydrogen Infrastructure | Website www.hyfluence.co | |
| | Employment (2025) 20 | Revenues (2025) \$10,000,000 | |
| | General Contact info@hyfluence.co Personal Contact Ron Klopfer, Chief Executive Officer rklopfer@hyfluence.co | | |
| Supply Chain Information Hyfluence Systems' supply chain is primarily based in Canada and the US, with some international elements. | | | |
| Major Projects 4000 kg/day refueling and gaseous hydrogen distribution system in Vernon, California. Bus refuelers for Lewis County Transit and Intercity Transit in Washington State. | | | |
| Partnerships and Collaboration The company collaborates with Chart Industries (NYSE:GLTS) , on hydrogen compression technology and system co-selling. Hyfluence Systems is open to exploring partnerships and market development opportunities globally. | | | |
| Data Sources Interview, S&P Capital IQ, website | | | |



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| | | illuming Power | | Category: BC Company | | | |
| Company Description Innovation innovation Illuming Power specializes on designing and building prototypes, as well as manufacturing fuel cells and fuel cell components on a small scale. The company provides custom solutions tailored to client needs, particularly in stationary power and transportation applications. Illuming Power has developed proprietary materials and manufactures its own plates and seal materials. | Organization Type Private Company | | Year Established 2017 | | | | |
| | Sub-Sector Fuel cell manufacturer | | Website https://www.illumingpower.com/ | | | | |
| | Employment (2025) 16 | | Revenues (2025) \$4,500,000 (USD) | | | | |
| | General Contact www.illumingpower.com/contact/ | | Personal Contact Mike Joyce, Commercial and Operations Manager mike.joyce@illumingpower.com | | | | |
| | | | | | | | |
| Supply Chain Information Illuming Power sources tooling and fixtures from local partners but relies in international suppliers for raw materials. | | | | | | | |
| Major Projects This information was not available. | | | | | | | |
| Partnerships and Collaboration Illuming Power collaborates with Innovation, Science and Economic Development Canada as well with partners in France and Germany and is interested in pursuing further collaborations. | | | | | | | |
| Data Sources Interview, S&P Capital IQ, website | | | | | | | |



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|  Ionomr Innovations | | Category: BC Company  |
| Company Description Ionomr Innovations is a leader in the development of next-generation ion-exchange membranes and polymers designed to decarbonize heavy industry. Our primary breakthrough lies in the creation of PFAS-free, hydrocarbon-based materials that replace traditional fluorinated "forever chemicals," which face increasing global regulatory scrutiny. These membranes and polymers enable a step-change in efficiency and scalability of electrochemical systems with alkaline-stable anion-exchange materials for producing the lowest-cost green hydrogen using electrolyzers as well as the most effective systems for carbon utilization with CO2 electro-reduction. Additionally, our hydrocarbon proton-exchange materials are designed to enhance efficiency, lifetime, and operational conditions of a fuel cell while enabling recycling and sustainability by the elimination of highly toxic materials. | Organization Type Private Company | Year Established 2017 |
| | Sub-Sector Electrolyzer & Fuel cell component manufacturer | Website ionomr.com |
| | Employment (2025) 47 | Revenues (2025) Confidential |
| | General Contact sales@ionomr.com Personal Contact Andrew Belletti, Sr. Director of Sales and Marketing belletti@ionomr.com | |
| Supply Chain Information Ionomr's primary business model is the production and sale of membrane and polymer materials through an 'asset light' model incorporating the use of contract manufacturing facilities for both base polymer and membrane materials with suppliers & manufacturing locations across US, Japan, China, India, EU & Canada. | | |
| Major Projects Ionomr's innovation strategy centers on two core product lines, providing reinforced membranes and ion exchange ionomers for both: <ul style="list-style-type: none"> • Aemion®: An ultra-stable anion-exchange membrane (AEM) that enables low-cost green hydrogen production. By operating in alkaline environments, it allows for the use of inexpensive, earth-abundant catalysts like nickel and iron instead of precious metals like iridium or platinum. • Pemion®: A high-performance cation-exchange membrane (PEM) that offers superior ionic conductivity and durability for fuel cells and electrolyzers, facilitating a circular economy through increased recyclability. | | |
| Partnerships and Collaboration Ionomr is interested in pursuing collaborations with international customers and partners. | | |
| Data Sources 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | |

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| | | Jenmar Concepts | | Category: BC Company | |
| Company Description Jenmar Concepts specializes in hydrogen-specific design, including for pressure vessels and piping, construction management and compliance with industry codes and standards. Jenmar Concepts serves a diverse range of clients, including utility companies, government bodies, and private enterprises. | Organization Type Private Company | | Year Established 2002 | | |
| | Sub-Sector Engineering consulting | | Website jenmarconcepts.com/ | | |
| | Employment (2025) 12 | | Revenues (2025) Confidential | | |
| | General Contact sales@jenmarconcepts.com | | | | |
| | Personal Contact Bruno Bate, Professional Engineer bbate@jenmarconcepts.com | | | | |
| Supply Chain Information Jenmar Concepts works mostly with Canadian suppliers. | | | | | |
| Major Projects This information was not available. | | | | | |
| Partnerships and Collaboration Jenmar concepts collaborates with subcontractors for specific civil engineering and other aspects outside their core area of focus and is interested in pursuing further partnerships. | | | | | |
| Data Sources Interview, S&P Capital IQ, website | | | | | |



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|  | NORAM Engineering & Constructors Ltd. | Category: BC Company |  | |
| <p>Company Description</p> <p>The NORAM Group, is a vertically integrated group of companies under common Canadian ownership and located in the Vancouver, BC area that specialize in the development, scale-up and full-scale commercialization of chemical processes. We have a 35+ year track-record in taking novel technologies from the laboratory to the marketplace. NORAM Engineering supplies world-scale proprietary engineering and equipment packages to the chemical, energy, heavy industry, pulp and paper, minerals processing, wastewater and electrochemical sectors. NORAM provides a wide range of services from technical services, assistance in technology development, development of custom pilot and demonstration plants, engineering and deployment of turn-key chemical plants, to full commercialization of process technologies. NORAM is active in the hydrogen sector with its own technologies as well as by partnering with other companies.</p> | <p>Organization Type</p> <p>Private Company</p> | <p>Year Established</p> <p>1988</p> | <p>Sub-Sector</p> <p>Technology firm</p> | <p>Website</p> <p>www.noram-eng.com</p> |
| <p>Employment (2025)</p> <p>Confidential.</p> <p>NORAM Group: 250 (240 in BC)</p> | <p>Revenues (2025)</p> <p>Confidential</p> | | | |
| <p>General Contact</p> <p>andresmb@noram-eng.com</p> <p>Personal Contact</p> <p>Andres Mahecha-Botero, Ph.D., P.Eng.</p> <p>andresmb@noram-eng.com</p> | | | | |
| <p>Supply Chain Information</p> <p>The NORAM Group has a global supply chain and works with Canadian companies as well.</p> | | | | |
| <p>Major Projects</p> <p>Please see: https://www.noram-eng.com/</p> <p>The NORAM Group has done projects in over 45 countries.</p> <p>NORAM has designed and built many world-scale chemical plants in various industries worldwide.</p> <p>Moreover, the NORAM Group has supplied pilot and demonstration systems for several process technologies.</p> | | | | |
| <p>Partnerships and Collaboration</p> <p>NORAM is open to collaboration worldwide.</p> | | | | |
| <p>Data Sources</p> <p>2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website</p> | | | | |



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|  The Power of Trust. The Future of Energy. | Powertech Labs | Category: BC Company |   |
| Company Description Powertech Labs is a wholly owned subsidiary of BC Hydro and a leading provider of testing, engineering, and hydrogen systems expertise. The company supports clean-energy, transportation, utility, and industrial sectors through advanced hydrogen safety and performance testing, modelling and simulation, asset assessment, and engineering consulting. Powertech operates specialized hydrogen testing facilities for components, systems, and full fueling infrastructure, enabling certification, durability validation, and safety verification for mobility and stationary applications. The organization also designs and manufactures hydrogen dispensers and transport trailers, contributing to the development of scalable hydrogen infrastructure across British Columbia and international markets. | Organization Type Subsidiary of BC Hydro | Year Established 1979 | |
| | Sub-Sector R&D | Website www.powertechlabs.com | |
| | Employment (2025) 250 (Powertech) | Revenues (2025) \$7.5 billion (BC Hydro) | |
| | General Contact sales@powertechlabs.com Personal Contact Tanja Smutny, P. Eng., Engineering Team Lead, Hydrogen Industry Technology and Testing tanja.smutny@powertechlabs.com | | |
| Supply Chain Information Powertech Labs leverages a globalized supply chain to support its hydrogen infrastructure products, sourcing key technologies and components internationally while procuring select materials—such as sheet metal, fabricated assemblies, and electronics—from suppliers within British Columbia. | | | |
| Major Projects Powertech Labs has supported numerous hydrogen initiatives, including development and validation of hydrogen fueling station components, large-scale testing programs for hydrogen storage and dispensing equipment, and engineering support for regional hydrogen mobility and infrastructure deployment projects. | | | |
| Partnerships and Collaboration Powertech Labs collaborates with industry, government, and research institutions to advance hydrogen technologies. Past collaborations include joint research with the Japanese Automotive Research Institute and partnerships with the California Air Resources Board. The organization continues to pursue opportunities to support hydrogen innovation in Canada and globally. | | | |
| Data Sources This profile was developed referencing interviews, internal expertise, public corporate information, and industry knowledge. | | | |



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|  | | Quadrogen Power Systems | Category: BC Company  |
| <p>Company Description</p> <p>Quadrogen Power Systems, Inc. (Quadrogen) is a Canadian clean technology company that provides complete biogas to biomethane, hydrogen, carbon capture and industrial gas recovery systems and support their customers through engineering & design services for feasibility studies, system fabrication, and development programs. Quadrogen purifies feed gases such as biogas, off gas, syngas, to produce high purity products such as renewable natural gas, hydrogen etc. by effectively removing contaminants such as nitrogen, carbon dioxide and unwanted hydrocarbons to trace levels. Quadrogen can process syngas and fuel cell exhaust gas to produce renewable, on demand hydrogen with their hydrogen booster technology. The company's "C3P" process cleans biogas and other gases and makes them usable as heat/electricity, biomethane, CO2 for greenhouses/hydroponics, and/or hydrogen. Quadrogen has over 85 installations across North America, South America, Europe, and Asia.</p> | <p>Organization Type</p> <p>Private Company</p> | <p>Year Established</p> <p>2007</p> | |
| | <p>Sub-Sector</p> <p>Hydrogen production</p> | <p>Website</p> <p>www.quadrogen.com</p> | |
| | <p>Employment (2025)</p> <p>30 in BC</p> | <p>Revenues (2025)</p> <p>Confidential</p> | |
| | <p>General Contact</p> <p>info@quadrogen.com</p> <p>Personal Contact</p> <p>Nelson Chan, Vice President, Business Development nelsonchan@quadrogen.com</p> | | |
| <p>Supply Chain Information</p> <p>Quadrogen conducts their R&D and design in BC, while their manufacturing occurs in Europe, China, India or Brazil to comply with local codes.</p> | | | |
| <p>Major Projects</p> <p>This information was not available.</p> | | | |
| <p>Partnerships and Collaboration</p> <p>Quadrogen collaborates with Canadian partners and is interested in expanding their customer base in Canada and internationally.</p> | | | |
| <p>Data Sources</p> <p>2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website</p> | | | |

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|  | | Quantum Technology | Category: BC Company |  |
| Company Description Quantum Technology specializes in manufacturing premium helium and hydrogen liquefaction units, recovery systems and helium production plants. They produce standard and custom solutions for any gas recovery, separation, purification and liquefaction. They produce large-scale hydrogen liquefiers and purifiers, with the capacity to produce several tons of fuel-cell quality hydrogen per day. | Organization Type Private Company | Year Established 1981 | | |
| | Sub-Sector Hydrogen production | Website www.quantum-technology.com | | |
| | Employment (2025) 50 in BC | Revenues (2025) \$50,000,000 | | |
| | General Contact sales@quantum-technology.com Personal Contact Ovi Marin, Executive VP and Partner ovidiu.marin@quantum-technology.com | | | |
| Supply Chain Information Quantum Technology builds and designs their own equipment and integrates other components they do not design. They purchase from suppliers in Europe, Asia and across North America. | | | | |
| Major Projects Quantum Technology is increasingly working on larger, more integrated projects with clients in the aerospace industry. | | | | |
| Partnerships and Collaboration Quantum Technology works collaboratively with universities and research centres across the world. They supply their technology to R&D facilities in the cryogenic and industrial gas sector. | | | | |
| Data Sources 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | |

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| | | Salish Elements | Category: BC Company | |
| Company Description Salish Elements is an Indigenous-led project development company that collaborates with First Nations communities in BC to advance the hydrogen sector. Salish Elements is collaborating with the Xaxli'p community to develop a flagship 25 MW hydrogen production project using underutilized water resources. Salish Elements also pursues projects in the transportation and energy generation space. Salish Elements is committed to bringing sustainable benefits to communities while maintaining a strong emphasis on land, water, and people. | Organization Type Private Company | Year Established 2022 | | |
| | Sub-Sector Project Developer | Website www.salishelements.ca | | |
| | Employment (2025) 12 | Revenues (2025) Pre-revenue | | |
| | General Contact contact@salishelements.ca Personal Contact Tom Moise, COO tom@salishelements.ca | | | |
| Supply Chain Information Salish Elements works with suppliers from Canada, the US, Europe and South Korea. | | | | |
| Major Projects Salish Elements is working with the Xaxli'p community to develop a 25MW green hydrogen production utility. | | | | |
| Partnerships and Collaboration Salish Elements partners very closely with Indigenous communities to develop and deliver projects. Salish Elements also works with other companies in BC's hydrogen ecosystem on infrastructure projects. | | | | |
| Data Sources Interview, website | | | | |



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|  | | TesTneT by UL Solutions | Category: BC Company  |
| Company Description <p>TesTneT by UL Solutions (TesTneT) a global testing laboratory with locations in Munich, Germany and Vancouver. TesTneT provides testing services to the alternative fuels industry, specializing in high pressure hydrogen (H2) fuel and compressed natural gas fuel (CNG) systems.</p> <p>TesTneT conducts a wide-range of tests including hydrogen gas pressure cycling, hydraulic pressure cycling, and destructive tests (fire testing, gunfire penetration) on all elements of hydrogen fuel systems, including fuel containers, pressure regulators, valves, fittings, and hoses.</p> | Organization Type Private Company | Year Established 2009 | |
| | Sub-Sector Fuel cell testing | Website h2-test.net | |
| | Employment (2025) 16 in BC | Revenues (2025) \$5,000,000 – \$10,000,000 | |
| | General Contact sales@h2-test.net Personal Contact Sean Allan, Senior Project Engineer sean.allan@ul.com | | |
| Supply Chain Information – International Partnerships/Collaboration TesTneT purchases hydraulic pumps and other components from global suppliers. | | | |
| Major Projects This information was not available. | | | |
| Potential Areas for Partnerships/Collaboration with Kansai TesTneT is regularly looking for new suppliers, as their customers need unique tests that require new high-pressure equipment. | | | |
| Data Sources 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | |

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|--|---|-------------------------|---------------------------------------|---|
|  | Unilia Canada Fuel Cells Inc. | | Category: BC Company |  |
| Company Description <p>Unilia (Canada) Fuel Cells Inc. is a global provider of electrochemical engineering and manufacturing services and hydrogen fuel cell stack and system products.</p> <p>Unilia leverages dedicated hydrogen testing, wet chemistry, and manufacturing labs to support clients from prototyping to full-scale production. Markets served include medium- to heavy-duty transportation (trucks, buses, trains, aviation), light-duty transportation (delivery vans, material handling), as well as primary and backup power generation.</p> | Organization Type | Year Established | | |
| | Private Company | 2017 | | |
| | Sub-Sector | Website | | |
| | Engineering services, toll coating, and hydrogen fuel cell solutions for components, stack and systems. | www.unilia.com | | |
| Employment (2025) | Revenues (2025) | | | |
| Confidential | Confidential | | | |
| General Contact | sales@unilia.com | | | |
| Personal Contact | Sven Ullrich, Business Development and Collaborations | | | |
| sven.ullrich@unilia.com | | | | |
| Supply Chain Information | | | | |
| Unilia sources raw materials (expanded graphite, resins) and fuel cell components (proton exchange membrane, carbon supported catalysts) and capital equipment from all over the world. | | | | |
| Major Projects | | | | |
| Unilia is part of the REFIRE group of companies, which is the world’s largest supplier of hydrogen fuel cell systems for medium- and heavy-duty applications. Unilia supports clients (from early-stage startups to established OEMs) on fuel cells, electrolyzers, and related reactor technologies, including proof-of-concept development, feasibility studies, and testing. On the product side, Unilia has completed three fuel cell stack platforms (Polaris, Electra, and Sirius) from concept to production to continually advance its stack platform offerings. | | | | |
| Partnerships and Collaboration | | | | |
| Unilia works with global partners and an international customer base and is interested in pursuing further collaboration. | | | | |
| Data Sources | | | | |
| 2022 Canadian Hydrogen Sector Profile, Interview, S&P Capital IQ, website | | | | |

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|  | | VulcanX Energy Corp. | Category: BC Company  |
| Company Description <p>VulcanX Energy Corp. (VulcanX) is a technology developer specializing in the conversion of natural gas into hydrogen and solid carbon through a unique pyrolysis process. This innovative technology breaks down hydrocarbon molecules into their base components using high temperatures and the absence of oxygen. VulcanX employs a molten metal to maintain heat without the need for a catalyst, ensuring continuous movement and preventing reactor clogging. The company operates primarily in BC and Alberta, leveraging commercially available systems to produce hydrogen with minimal costs and no emissions.</p> | Organization Type Private Company | Year Established 2022 | |
| | Sub-Sector Hydrogen production | Website www.vulcanx.ca | |
| | Employment (2025) 12 | Revenues (2025) Pre-revenue | |
| | General Contact www.vulcanx.ca/vulcanx-energy-corp-contact/ Personal Contact Omar Herrera, CEO and Founder omar.herrera@vulcanx.ca | | |
| Supply Chain Information VulcanX purchases components from global suppliers. | | | |
| Major Projects VulcanX developed a pilot demonstration plant in Alberta and is aiming to scale production to 1 ton of hydrogen per day by 2026. | | | |
| Partnerships and Collaboration VulcanX has not yet engaged in any collaborations or partnerships but is actively seeking partners and investors. | | | |
| Data Sources Interview, website | | | |

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| | | Foresight Canada | Category: Non-Profit | |
| Company Description Foresight Canada (Foresight) is an accelerator with extensive knowledge of the cleantech ecosystem. Foresight supports both the supply and demand sides of the industry through research, convening sector participants and an accelerator program to help hydrogen ventures scale. The organization has a national mandate, but most of its hydrogen-related activities have been focused in BC. | Organization Type Non-Profit | Year Established 2013 | | |
| | Sub-Sector Accelerator | Website www.foresightcac.com | | |
| | Employment (2025) 44 | Revenues (2025) \$12,000,000 | | |
| | General Contact www.ic.gc.ca/eic/site/icgc.nsf/eng/h_07026.html Personal Contact Alyssa Kelly, Director of Research akelly@foresightcac.com | | | |
| Supply Chain Information N/A | | | | |
| Major Projects Foresight collaborated with the BC government in 2024 to conduct research examining the potential for hydrogen hubs across the province. | | | | |
| Partnerships and Collaboration Foresight frequently works with partners in government, other non-profit organizations, clean tech companies, and academia. | | | | |
| Data Sources Interview, website | | | | |

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| <p>CITY OF PRINCE GEORGE</p> | City of Prince George | | Category: Government and Public Organizations |
| <p>Company Description</p> <p>The City of Prince George is actively involved in the hydrogen sector, positioning itself as a key location for hydrogen hub development in Northern BC. As a hydrogen hub, the city promotes hydrogen opportunities in the region and has partnered with various organizations across Northern BC to raise awareness and support for hydrogen-related projects. As a city along major transportation routes like highways and rail and home to major manufacturing operations, it has multiple opportunities for hydrogen projects.</p> | <p>Organization Type</p> <p>Local Government</p> | <p>Year Established</p> <p>2022</p> | |
| | <p>Sub-Sector</p> <p>N/A</p> | <p>Website</p> <p>www.princegeorge.ca/</p> | |
| | <p>Employment (2025)</p> <p>2 (involved with hydrogen)</p> | <p>Revenues (2025)</p> <p>N/A</p> | |
| | <p>General Contact</p> <p>311@princegeorge.ca</p> <p>Personal Contact</p> <p>Deklan Corstanje, Economic Development Manager deklan.corstanje@princegeorge.ca</p> | | |
| <p>Supply Chain Information</p> <p>N/A</p> | | | |
| <p>Major Projects</p> <p>The City of Prince George contributes to the development of the hydrogen hub in Northern BC by promoting hydrogen opportunities in the region. For example, the City of Prince George developed a comprehensive hydrogen permitting case study to clarify municipal processes and support investment confidence in the emerging hydrogen hub.</p> | | | |
| <p>Partnerships and Collaboration</p> <p>The City of Prince George collaborates closely with other local governments and Indigenous partners in Northern BC as well as the provincial government (CEMPO), the federal government (ISED) and CHA.</p> | | | |
| <p>Data Sources</p> <p>Interview, website</p> | | | |

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|  Innovation, Science and Economic Development Canada | Innovation, Science and Economic Development Canada (ISED) | Category: Government and Public Organizations  |
| Company Description ISED helps industry partners with government questions, provides support for clean energy sectors, and provides pathfinding advice/support to company boards trying to navigate their way through government programs and systems. The team also provides help with industry events and evaluates funding programs regularly. As a touchpoint between sector and government, ISED also briefs governments at all levels on sector trends and opportunities. | Organization Type Government | Year Established 1892 |
| | Sub-Sector N/A | Website www.ised-isde.canada.ca/site/ised/en |
| | Employment (2025) 1 (involved with hydrogen) | Revenues (2025) N/A |
| | General Contact https://ised-isde.canada.ca/ Personal Contact Eric Barker: Manager, Hydrogen & Clean Energy Technologies eric.barker@ised-isde.gc.ca (604) 657-9800 | |
| Supply Chain Information N/A | | |
| Major Projects N/A | | |
| Partnerships and Collaboration ISED collaborates with other federal government organizations, such as the National Research Council of Canada (NRC), Natural Resources Canada (NRCan), PacifiCan, Global Affairs Canada (GAC), provincial and municipal governments, nationally. ISED and NRCan are also involved internationally, through the International Partnership for Hydrogen and Fuel Cells in the Economy (www.iphe.net). | | |
| Data Sources Interview, website | | |

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| | Simon Fraser University Clean Hydrogen Hub | Category: Government and Public Organizations | | | | | | | |
| <p>Company Description</p> <p>The SFU Clean Hydrogen Hub is a new core research facility that brings together industry, community, academia and government partners to advance the clean energy transition. Situated atop Burnaby mountain, the hub will produce clean hydrogen and will be a one-megawatt testbed for advancements in emerging clean hydrogen technology.</p> <p>It will also serve as a global centre for research and innovation that will connect stakeholders across the value chain – from academic researchers to system developers and manufacturers, to community partners piloting clean energy solutions, and industry users in manufacturing, heavy duty transport and off-grid generation.</p> | <table border="1"> <tr> <td data-bbox="792 373 1044 449"> Organization Type University </td> <td data-bbox="1052 373 1445 449"> Year Established 2024 </td> </tr> <tr> <td data-bbox="792 449 1044 596"> Sub-Sector R&D </td> <td data-bbox="1052 449 1445 596"> Website www.sfu.ca/research/institutes-centres-facilities/core-facilities/sfu-clean-hydrogen-hub.html </td> </tr> <tr> <td data-bbox="792 596 1044 669"> Employment (2025) 4 </td> <td data-bbox="1052 596 1445 669"> Revenues (2025) N/A </td> </tr> <tr> <td colspan="2" data-bbox="792 669 1445 924"> General Contact hydrogen_hub@sfu.ca Personal Contact Laura Sloboda, Director, Clean Hydrogen Hub lsloboda@sfu.ca </td> </tr> </table> | Organization Type University | Year Established 2024 | Sub-Sector R&D | Website www.sfu.ca/research/institutes-centres-facilities/core-facilities/sfu-clean-hydrogen-hub.html | Employment (2025) 4 | Revenues (2025) N/A | General Contact hydrogen_hub@sfu.ca Personal Contact Laura Sloboda, Director, Clean Hydrogen Hub lsloboda@sfu.ca | |
| Organization Type University | Year Established 2024 | | | | | | | | |
| Sub-Sector R&D | Website www.sfu.ca/research/institutes-centres-facilities/core-facilities/sfu-clean-hydrogen-hub.html | | | | | | | | |
| Employment (2025) 4 | Revenues (2025) N/A | | | | | | | | |
| General Contact hydrogen_hub@sfu.ca Personal Contact Laura Sloboda, Director, Clean Hydrogen Hub lsloboda@sfu.ca | | | | | | | | | |
| <p>Supply Chain Information</p> <p>SFU is working with Canadian companies, when possible, to procure equipment utilized in the Clean Hydrogen Hub.</p> | | | | | | | | | |
| <p>Major Projects</p> <p>The hub is developing a novel 250-500kW AEM electrolyzer with Canadian industry partners.</p> | | | | | | | | | |
| <p>Partnerships and Collaboration</p> <p>The hub focuses on the green hydrogen value chain and invites researchers and industry collaborators to partner with us via the SFU Climate Innovation Mitacs Umbrella funding. The hub also collaborates internationally and is part of the Trans-Atlantic Hydrogen Dialogue and the Pan-Canadian Alliance of Hydrogen Hubs. The Clean Hydrogen Hub is made possible through funding from PacifiCan, NorthX Climate Tech, FortisBC Energy Inc, the BC Ministry of Energy and Climate Solutions via the Innovative Clean Energy Fund, and the City of Burnaby.</p> | | | | | | | | | |
| <p>Data Sources</p> <p>Interview, website</p> | | | | | | | | | |

4. Future Outlook

Future Sales and Employment Forecast (2025-2030)

According to interviewees, future sales and employment in the sector are expected to rise modestly between 2025 and 2030, expanding as new projects come online and products in final pilot testing phases go to market. Many organizations, especially those focused on technology development and component manufacturing, expect employment to remain stable or grow modestly in this time frame, with some planning to double staff if market conditions are favourable. Sector participants identified the following trends impacting future sales and employment:



Successful pilot demonstrations are expected to drive revenue increases. Several hydrogen companies in BC expect revenue to increase over the next five years, particularly as demonstration projects mature and new applications such as heavy-duty mobility, stationary power, and industrial decarbonization gain traction.



Global demand will impact BC's hydrogen sector. While the sector is leaner and more focused than in 2021, BC's hydrogen industry remains optimistic about long-term opportunities, with the potential for significant job creation and export-driven sales as the ecosystem matures and global demand for clean hydrogen solutions increases.

Anticipated Developments

BC's hydrogen sector is expected to evolve through a mix of cautious optimism and strategic regional development. In particular, anticipated developments include persistent technological innovation that drives the sector and increased importance of regional hydrogen hubs. Further, BC is expected to remain a favourable location for the hydrogen sector due to energy availability and the concentration of skilled workers in the region. At the same time, increased use of hydrogen in heavy industry and trucking offers an opportunity for BC companies.



Continuous Innovation. BC's hydrogen sector continues to demonstrate strong innovation, particularly in the development and commercialization of methane pyrolysis and other advanced hydrogen production technologies. Companies such as Ekona Power, Quadrogen, or NORAM Group are actively advancing new pathways including non-catalyst methane pyrolysis, waste gas purification, and modular demonstration systems positioning BC as a leader in next-generation, low-carbon hydrogen solutions.



Growing importance of regional hydrogen hubs. Regional hydrogen hubs are gaining traction across BC, with industry leaders and ecosystem organizations highlighting hubs as a practical strategy to overcome the "chicken and egg" challenge of matching supply and demand for hydrogen. Hubs are seen as a way to lower costs and accelerate hydrogen adoption by developing hubs around core users and leveraging local strengths such as port

infrastructure, renewable resources, and industrial clusters. The hub approach is already being implemented in regions such as Metro Vancouver and the southern interior, and is seen as a key strategy for attracting investment and demonstrating real-world hydrogen deployment.



BC is expected to remain a favourable location for the hydrogen sector. BC is expected to continue to build on its strong base of technical talent, established cluster of hydrogen and fuel cell companies, and access to abundant, low-carbon electricity. Industry leaders consistently highlight BC's collaborative ecosystem, supportive research environment, and proximity to export markets as key advantages that position the province for ongoing leadership and innovation in clean hydrogen technologies.



Increased decarbonisation of heavy industry and heavy-duty transportation. Sectors such as freight, mining, and marine transport are increasingly exploring hydrogen as a clean alternative to diesel. At the same time, industrial operations are evaluating hydrogen for process heat and emissions reduction.²³ With pilot projects already underway and growing demand for low-carbon solutions, hydrogen is expected to play an important role in decarbonizing heavy industry and heavy-duty transportation.

Given these anticipated developments, opportunities for BC's hydrogen ecosystem continue to grow as the global hydrogen economy matures, leveraging its established cluster of technology developers, component manufacturers, and project integrators. The sector's strengths in fuel cell innovation, advanced materials, and system integration anchored by companies profiled in this guide positions BC to continue to be a global leader in hydrogen.

As international markets in Asia, Europe, and North America seek reliable partners for clean hydrogen technologies, BC's export-oriented companies are well-placed to meet this demand with proven expertise and a track record of global collaboration.

²³ Natural Resources Canada. (n.d.). Hydrogen (Canada). Government of Canada. Retrieved from <https://natural-resources.canada.ca/energy-sources/clean-fuels/hydrogen-canada>

5. Conclusion

As outlined in this Guide, BC's hydrogen sector is supported by a diverse network of over 70 organizations and hundreds of skilled professionals contributing expertise across the entire hydrogen value chain; from production and processing to storage, transportation, and fuel cell system development. This broad base reflects a growing ecosystem of activity that spans both technical and commercial areas.

With access to renewable electricity, a foundation of supportive policy, and proximity to global markets with increasing hydrogen demand, BC continues to offer conditions that support development in the hydrogen space. Ongoing investment and the emergence of regional hubs are helping to shape an increasingly integrated hydrogen value chain in the province.

Collaboration across industry, academia, and government remains a key feature of the sector, contributing to continued progress and innovation. As the sector evolves, these elements may support further growth and position BC to play a meaningful role in the broader Canadian and global hydrogen economy.

British Columbia Hydrogen Sector Spotlight

How is the Government of British Columbia supporting the province's hydrogen future?

International businesses are discovering the advantages of British Columbia's open and diversified economy. Trade and Invest BC works with international enterprises to help them build strong connections to the resources, skills and businesses that make British Columbia the natural place to work, live and invest.

Our experienced team of trade and investment professionals have access to a global network of representatives in China, Japan, Korea, Southeast Asia, Taiwan, India, Europe, Mexico and the United States. Our team connects incoming investors and businesses to opportunities, provides insights into doing business in British Columbia and exporting from British Columbia to key markets. Contact us at [BritishColumbia.ca](https://www.britishcolumbia.ca).



Supported by the Province of British Columbia

Appendices

Appendix A – List of Participating Organizations

- AVL Fuel Cell Canada
- Ballard Power Systems Inc.
- BC Hydrogen Office – Clean Energy and Major Projects Office
- Cariboo Clean Fuels Inc.
- City of Prince George
- dPoint Technologies
- Ekona Power
- Foresight Canada
- HTEC
- Hydra Energy Corporation
- Hydrogen in Motion
- Hyfluence Systems Corp.
- Illuming Power
- Innovation, Science & Economic Development Canada
- Ionomr Innovations
- Jenmar Concepts
- NORAM Group (BC Research Inc.)
- Powertech Labs
- Quantum Technology
- Quardogen Power Systems
- Salish Elements
- Simon Fraser University
- TesTneT by UL systems
- Unilia Fuel Cells Inc.
- VulcanX

Appendix B – About the Canadian Hydrogen Association (CHA)

The Canadian Hydrogen Association is the national association representing Canada's world-recognised hydrogen sector. As the collective voice of the ecosystem, the CHA raises awareness of the many economic, environmental and social benefits of hydrogen and hydrogen technologies. Its mission is to champion the Canadian sector, strengthen its leadership and accelerate the commercialization of members' products and services in Canada and abroad. The CHA's membership comprises industry, academia and end-users that span the entire value chain, ranging from hydrogen production, fuel cell stack development, components and materials, systems supply and integration, fuelling infrastructure, and services.



Appendix C – About MNP

For 65 years, MNP has proudly served and responded to the needs of clients in public, private and not-for-profit sectors.



We customize every engagement to meet the specific needs of our clients. By having local, regional and national expertise in all of our markets, we are able to provide clients with partner-led projects, which are grounded in the unique context of the region.

MNP has more than 125 offices and 9,000 team members across the country. We have over 240 partners in Consulting nationally who support businesses ranging from small and medium enterprises to large public companies.

Our Custom Research and Economic Insights Practice

Creating a competitive advantage from data-driven insight.

Our team of experienced and skilled economists and statistical analysts specializes in helping clients make strategic decisions, evaluate programs and business alternatives, determine economic and financial contributions, and develop public policy — all through data-driven insight. Our work helps organizations across industries, associations, levels of government, and communities make evidence-based decisions to achieve positive outcomes.

