

Canada-Germany Hydrogen Stakeholder Directory

Compiled for the Canada-Germany Energy Partnership



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Overview and Purpose

The Canada-Germany Hydrogen Stakeholder Directory

The Canada-Germany Hydrogen Stakeholder Directory is a product of the Canada-Germany Energy Partnership. It provides as an overview of companies, research institutes, and governmental and non-governmental organisations in Canada and Germany who are involved or interested in working together to ramp-up hydrogen production and use, as well as creating transatlantic hydrogen trade opportunities.

This Stakeholder Directory supports bilateral actions outlined in the Joint Declaration of Intent between Canada and Germany from August 2022 to establish the Canada-Germany Hydrogen Alliance. Canadian and German stakeholders along the hydrogen value chain are encouraged to make use of this directory to explore cooperation and business opportunities on both sides of the Atlantic. Organisations and businesses who would like to be listed in future iterations of the directory are encouraged to contact the German Secretariat of the Energy Partnership with Canada at epsecretariat@germanchamber.ca.

The Canada-Germany Energy Partnership

The Canada-Germany Energy Partnership was established by Natural Resources Canada (NRCan) and the Federal Ministry for Economic Affairs and Climate Action (BMWK) in March 2021. The strategic direction of the Energy Partnership is set by its Steering Committee, which is co-chaired on the Deputy Minister / State Secretary level, and which is also responsible for establishing thematic working groups. The current Energy Partnership Action Plan focuses on bilateral cooperation regarding hydrogen, minerals security for energy transition and climate, energy security, and clean technology.

Within the Energy Partnership, the hydrogen cooperation activities focus on supporting the establishment of a hydrogen export corridor from Canada to Germany, as well as on the topics of standard-setting and certification, business to business networking, and industry decarbonisation.

For more information about the Canada-Germany Energy Partnership, and current and past activities, please consult the website www.canada-germany-energy-partnership.org.



Hydrogen Stakeholders in Canada and Germany

Business associations, economic development agencies, and unions

acatech - National academy of science and engineering



Funded by the Federal Government and the Länder, acatech - National Academy of Science and Engineering is the voice of the technological sciences at home and abroad. acatech provides advice on strategic engineering and technology policy to policymakers and the public. The academy fulfils its mandate to provide independent, evidence-based advice that is in the public interest under the patronage of the Federal President.



www.acatech.de Andrea Lübcke, Head, H2-Compass project luebcke@acatech.de

Alberta Motor Transport Association



The Alberta Motor Transport Association (AMTA) is a commercial transportation leader supporting 15,000 Alberta carrier members. Projects include: the Alberta Zero Emissions Truck Electrification Collaboration (AZETEC) that will design and demonstrate 2 heavy duty hydrogen electric trucks for 18 months, the design of a hydrogen fueling station, hydrogen diesel dual fuel and hydrogen fuel cell electric vehicles trials.



www.amta.ca Transport Association Chris Nash, President chris.nash@AMTA.ca

Association de l'Industrie Électrique du Québec

The IAEQ supports the value chain of manufacturers and services providers in the Electric Industry in Quebec to develop the best electric ecosystems in the world in performance, efficiency, numeric network, and talent development.



www.aieq.net Marie Lapointe mlapointe@aieq.net

Atlantic Hydrogen Alliance



In the pursuit of regional hydrogen opportunities and to address the challenges, the Atlantic Hydrogen Alliance (AHA) has been created to support the development of an economically viable clean hydrogen value chain that will enable the transition to a prosperous low-carbon economy in Atlantic Canada.



www.atlantichydrogen.ca Tilda Hadley, Project Manager thadley@netzeroatlantic.ca +1 (902) 410-7148



Atlantica Centre for Energy

As Atlantic Canada's proactive voice for energy, the Centre provides a meeting ground for industry, government, education, and the community to foster partnerships and engage in energy-related issues. We are dedicated to increasing energy literacy and helping the region realize opportunities associated with the energy sector. The Atlantic region is well positioned to lead the country in developing hydrogen as a clean fuel source, for which we are an advocate.



www.atlanticaenergy.org
Michelle Robichaud, President
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+1 (506) 636-1110

BDEW



BDEW is representing German electricity, gas and water companies along the whole value chain. It is committed to the climate targets set by the German government and the EU. In this context it is actively promoting the replacement of fossil fuels through decarbonized gases, including hydrogen. It lately proposed a 13-step action plan for a swifter ramp up of a hydrogen-based economy.



www.bdew.de
Toralf Pilz, Foreign Policy Advisor
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+49 (0) 30 3001 9912 63

Canadian Hydrogen and Fuel Cell Association (CHFCA)

The Canadian Hydrogen and Fuel Cell Association (CHFCA) is a national sector association that supports industry, academia, government agencies, financial organizations and other stakeholders focused on hydrogen and fuel cell technologies and products.



www.chfca.ca Nicolas Hilario, Director of Operations nhilario@chfca.ca

German Hydrogen and Fuel Cell Association (DWV e.V.)



The German Hydrogen and Fuel Cell Association (DWV) represents the interests of over 400 personal member and over 150 member institutions and companies to promote the rapid market ramp-up of hydrogen as an energy carrier and fuel cell technology. DWV activities focus on implementing and optimizing the necessary market, technological and regulatory framework for the hydrogen economy along the value chain.



www.dwv-info.de Werner Diwald, Chairman h2@dwv-info.de



DIHK



The DIHK is the German Association of Chambers of Commerce and Industry. It represents the 79 regional chambers (IHKs) as well as more than 140 chambers abroad (AHKs). All trades and industries are thus represented by the organisation. While the DIHK represents the interests of these companies at federal level, the regional chambers (IHKs) and chambers abroad (AHKs) support them in the realisation of their projects (webinars, setting up of working groups, R&D, etc.).



www.dihk.de Louise Maizières Head of Unit for Hydrogen maizieres.louise@dihk.de

Edmonton Global



The purpose of Edmonton Global is to radically transform and grow the economy of the Edmonton Metropolitan Region. Edmonton Global works with other partners to advance the Edmonton Region Hydrogen Hub, and to attract investment to the region's growing hydrogen economy.



www.edmontonglobal.ca Edmonton Brent Lakeman, Director, Hydrogen Initiative blakeman@edmontonglobal.ca

Edmonton Region Hydrogen HUB

The Edmonton Region Hydrogen HUB is an alliance of government, Indigenous, academic and economic development leaders working to implement a regional hydrogen economy. The HUB creates new hydrogen markets by creating and coordinating new hydrogen demand projects with municipal and private fleet vehicles, building heating, power production and new industrial uses, while facilitating the development of integrated supply and fueling distribution channels, including export.



www.erh2.ca Mark Lea-Wilson, Hydrogen HUB Lead mlea-wilson@transitionaccelerator.ca

Renewable Energy Hamburg Cluster Agency (EEHH GmbH)



EEHH fosters networking of stakeholders in wind, solar energy, renewable heat, sector coupling, storage and H2. Hamburg's H2 value chain covers production, distribution, transport, and application in the raw materials industry, maritime, aviation, logistics and mobility. EEHH promotes member 'internationalisation, and regional business and research are highly interested in collaborating with Canadian counterparts.



www.eehh.de

Sibyl Scharrer, International Cooperation Hydrogen Renewable Energy sibyl.scharrer@eehh.de +49 (0) 4069 4573 22



f-cell Canada, Messe Stuttgart



The 5th Annual International Hydrogen & Fuel Cell Event / June 5 - 7, 2023 / Vancouver Convention Centre. The annual conference and international trade fair bring together renowned international specialists to discuss solutions for clean energy with hydrogen and fuel cells leading the way. Join us in Vancouver on June 5-7 for f-cell Canada 2023!



www.hyfcell.com

Carolynn Jaworska, Coordinator of Exhibitions and Events carolynn.jaworska@messe-stuttgart.de

+49 (0) 7111 8560 2544

Federation of German Industries (BDI)



The Federation of German Industries (BDI) is the umbrella organization of German industry and industry-related service providers. 40 industry associations, more than 100,000 companies with around eight million employees in Germany make us the voice of German industry. With the BDI and acatech cooperation project "HySupply" and the Transatlantic Business Initiative (TBI), we are committed to supporting bilateral hydrogen partnerships.



www.bdi.eu

Carsten Rolle, Head of Department Energy and Climate Policy c.rolle@bdi.eu

German Steel Federation



The German Steel Federation is the representation of the German steel industry, which strives for decarbonization via using clean hydrogen. As a first-mover in the field of developing a major industrial clean hydrogen use, it can help to ramp-up the h2economy as a whole. The German Steel Federation is not a distributor of business inquiries to steel companies. Its interest lies in helping to create the right political framework for hydrogen imports to Europe/Germany and building up a hydrogen chain of economic value between Germany and Canada.



www.stahl-online.de Wirtschaftsvereinigung Alexander Klatte, Hydrogen Coordinator alexander.klatte@wvstahl.de

Germany Trade & Invest



Germany Trade & Invest (GTAI) is the economic development agency of the Federal Republic of Germany. We support German companies in their international business activities and foreign companies looking to locate to Germany. The German government sees hydrogen technology as the key to the country's clean energy future. It's investing billions of euros in the sector. Find out more and get in touch with our industry experts to discuss business opportunities in Germany.



www.gtai.de Daniel Lenkeit, Director Canada daniel.lenkeit@gtai.com



Hanseatic Energy Hub



HEH is building a new zero-emission terminal for LNG that will diversify Germanys demand for imported, affordable energy and contribute to a secure and sustainable energy supply. Starting with LNG, an increasing share of synthetic and bio-LNG will establish an investment in increasingly climate-neutral energy imports. With the offering of new, climate-neutral energy sources growing globally, the hub will be equipped to import hydrogen-based fuels in its second stage of development.



www.hanseatic-energy-hub.de Dr. Johann Killinger, Managing Director info@hanseatic-energy-hub.de

HYDROGEN DIALOGUE - Summit & Expo



HYDROGEN DIALOGUE – Summit & Expo brings together national and international decision-makers and experts from business, politics, and science. The event takes place annually in the Exhibition Center Nuremberg and digital and is based on a topclass lecture program on currently relevant topics in the field of hydrogen. The expo and networking options complete the varied program.



www.hydrogendialogue.com/en Jasmin Rutka, Director HYDROGEN DIALOGUE jasmin.rutka@nuernbergmesse.de +49 (0) 9118 6068 557

HY-EU Trading



HY-EU and HY-US are the first and only production type independent, non-public, noncommodity trading platform. Green H2/NH3/Methanol producers are seeking large and medium size off-takers, storage, logistic partners.



hySOLUTIONS GmbH



hySOLUTIONS is a public-private company with shareholders from the mobility and infrastructure sector, the energy industry and the Hamburg business community. Concerning hydrogen, it supports and coordinates the application of fuel cell and hydrogen technology in the Hamburg metropolitan region in close coordination with the local authorities. The company's focus is on innovation management, concept development and project coordination in connection with hydrogen and fuel cell technology.



www.hysolutions.de SULUTIONS Peter Lindlahr, Managing Director Innovative Antriebe für Hamburg peter.lindlahr@hysolutions-hamburg.de



HY-5 The Green Hydrogen Initiative of Northern Germany



The economic development organisations of the northern German states Bremen, Hamburg, Mecklenburg-Vorpommern, Niedersachsen, and Schleswig-Holstein have joined forces to form the green hydrogen initiative HY-5. HY-5 promotes the states as an economic stronghold, aims to make Northern Germany the leading future region for green hydrogen in Europe and to complete the value chain for green hydrogen.



Hydrogène Québec ■*■

Our mission is to support the new public and private projects in green - low carbon hydrogen in Quebec, to serve the industry and transportation reduction of GES BY 2030.



www.hydrogene.quebec

Michel Archambault, President of Hydrogène Québec

michel.archambault@evolugen.com



InnovÉÉ's mandate is to boost, support and finance collaborative R&D projects in : electricity, smart grids, transportation electrification and intelligent vehicles by pooling the expertise and resources of industrial partners and research institutions. We finance projects in green hydrogen, and we organize events and a community of interests.



www.innovee.quebec Alex Champagne-Gélinas, Director agelina@innovee.quebec

+1 (514) 416-6777

Power Workers' ■ Union

The PWU is committed to the following principles: Create opportunities for sustainable, high-pay, high-skill jobs; ensure reliable, affordable, environmentally responsible electricity; build economic growth for Ontario's communities; and, promote intelligent reform of Ontario's energy policy. The PWU is involved with the NRCan hydrogen production working groups and advocates all levels of government to advance the production of hydrogen.



www.pwu.ca John Ives, Staff Officer Reporting to the President ivesj@pwu.ca +1 (416) 518-1226



Private Motor Truck Council of Canada

We are a National Association that represents Canada's Private and dedicated transportation fleets. We have been in operation since 1977. We promote best practices, safety, sustainable transportation, and provide educational and networking opportunities. We also work with our members and government agencies to seek out alternative fuels to help lower the industry carbon footprint.



www.pmtc.ca Mike Millian, President trucks@pmtc.ca +1 (905) 827-0587 ext 102

PtX Hub / Deutsche Gesellschaft für internationale Zusammenarbeit



The Power-to-X Hub is a knowledge and exchange platform to accelerate market development of Power-to-X on a global scale. Together with our partner countries, we aim to make the most of Power-to-X's tremendous potential for climate protection and sustainable economic development. We connect local and global players, advise governments on Power-to-X strategies, publish studies and data tools, and organise trainings and workshops for key decision-makers.



Société de développement économique du Saint-Laurent

The St. Lawrence Economic Development Council (SODES) is a non-profit organization that protects and promotes the economic interests of the St. Lawrence River. SODES represents the maritime community.



www.st-laurent.org
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VDMA Power-to-X for Applications



VDMA Power-to-X for Applications is a cross-industry platform for exchange, communication, and cooperation in the P2X community. It involves all important stakeholders, from the development of manufacturing processes through the production of synthetic fuels and raw materials using P2X technologies to the customer. We promote a holistic and technology-open approach to the transformation of energy systems and raise awareness of environmentally friendly energy use and mobility.



www.vdma.org/power-to-x-for-applications
Peter Müller-Baum, Managing Director VDMA Power-to-X
mueller-baum@vdma.org
+49 (0) 69 6603 1353



Verband der Chemischen Industrie



Hydrogen is already an important raw material for the chemical industry, which is the biggest hydrogen consumer in Germany with about 1 million tons. (Green) Hydrogen will be key for the greenhouse gas neutrality strategy of the chemical industry. Processing carbon dioxide as carbon source needs hydrogen as cofactor. Hydrogen must be available in sufficient amounts (up to 6 million tons only for the German chemical industry) and at competitive prices.



www.vci.de Dr. Joerg Rothermel, Head of Department rothermel@vci.de +49 (0)69 2556 1463

Wirtschaftsverband Fuels und Energie e. V. (en2x)



en2x – Industry Association for Fuels & Energy in Germany bundles the interests of its member organisations and supports today's petrol industry on its transformation towards sustainable energy companies that contribute to reaching climate neutrality. We believe that local production as well the import of green hydrogen will play a major role in the energy transition in Germany in the years to come.



http://www.en2x.de
Christian Küchen, Director General
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+49 (0)30 2022 0556

Government agencies and government research organisations

Canada Energy Regulator

The CER provides lifecycle regulatory oversight of oil and natural gas pipelines and electrical powerlines that cross provincial, territorial or international boundaries. Our mandate is to ensure energy, including hydrogen, moves safely across the country. We are assessing our regulations and working on the development of codes and standards to ensure pipeline transportation of hydrogen can be done safely. The CER also provides hydrogen supply and demand analysis to the government and public.



Régie de l'énergie du Canada www.cer-rec.gc.ca
Peter Budgell, Technical Specialist
peter.budgell@cer-rec.gc.ca
+1 (403) 370-0276

CanmetMATERIALS ***

CanmetMATERIALS is a federal materials science which deploys unique expertise and pilot-scale equipment to develop cost-effective materials, manufacturing and assembly processes, and codes and standards to support Canada's clean energy goals and competitiveness. The lab works on materials to enable a growing hydrogen economy in Canada, including H2 blending in existing gas pipelines, materials for H2 production (including accelerated materials discovery), CCUS, and low-emission steelmaking.





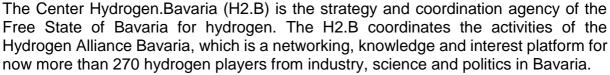
www.nrcan.gc.ca/science-and-data Sorin Mitrea, Policy Analyst sorin.mitrea@nrcan-rncan.gc.ca

CanmetMINING **

CanmetMINING is a multidisciplinary R&D organization that assesses high risk and promising technologies and applications for surface and underground mining operations. Its "Canada Hydrogen In Mines" team has developed a roadmap to advance toward demonstration stages and develop necessary guidelines to support the relevant codes-standards-regulations developments for hydrogen powered technologies and application that benefits the Canadian mining operations.

Pejman Nekoovaght, Research Scientist pejman.nekoovaght@nrcan-rncan.gc.ca

Center Hydrogen.Bavaria (H2.B)





ZENTRUM WASSERSTOFF. Carolin Reiser, Manager International Affairs carolin.reiser@h2.bayern

City of Mississauga

The City of Mississauga transit (MiWay) is participating in a hydrogen fuel cell electric bus demonstration and integration trial, which will be delivered in two phases. For more information see the following link:

www.mississauga.ca/projects-and-strategies John Barber, Business Analyst john.barber@mississauga.ca

Environment and Climate Change Canada

Environment and Climate Change Canada is the Federal Environment Ministry. We are currently working on a wide variety of tools to support hydrogen, including the recently published Clean Fuel Regulations.

https://www.canada.ca/en/environment-climate-change.html Diana Jula, Project Engineer diana.jula@ec.g.ca



German Aerospace Center (DLR)

The German Aerospace Center (DLR) is involved in all areas of H2 research, from production through to utilisation. DLR is working on 'green' H2 through solar-thermal and photoelectrochemical processes and electrolysis, while also investigating transportation and distribution and storage in caverns and tanks. DLR develops energy fuel cells for trains, ships, road vehicles & aircraft, H2 fueled gas turbines & rockets and H2-based industrial processes like steel & fuel production.



http://www.dlr.de/EN/research International Relations, Washington Office für Luft- und Raumfahrt washington@dlr.de

Ministry of Highways, Government of Saskatchewan

The ministry's core lines of business focus on providing transportation infrastructure and services for a growing Saskatchewan by planning, designing, and building, maintaining, operating, regulating, and developing policies for the transportation system. In everything the ministry does, safety is the top priority.



www.saskatchewan.ca Varinder Mittal, Fleet Project Engineer varinder.mittal@gov.sk.ca +1 (306) 940-8037

National Research Council of Canada

NRC has four research programs with a hydrogen technologies component to them. We partner with industry, government departments and academia to perform R&D across the hydrogen value chain, from production to end-use. At NRC Mississauga we are working toward development of materials, formulations, devices, and systems for clean energy technologies including hydrogen productions through electrolysis.

http://www.nrc-cnrc.gc.ca François Girard, Program Advisor, Hydrogen Technologies françois.girard@nrc-cnrc.gc.ca

Parisa Karimi, Research Officer parisa.karimi@nrc-cnrc.gc.ca

Natural Resources Canada (NRCan)

Government of Canada - Hydrogen Strategy for Canada - H2 domestic implementation and export readiness. Clean Fuels Fund - building out EV and H2 infrastructure in Canada.



Natural Resources Ressources naturelles



www.nrcan.gc.ca

Amandeep Garcha, Deputy Director, Fuels Sector amandeep.garcha@nrcan-rncan.gc.ca



Nova Scotia Department of Natural Resources and Renewables

The Nova Scotia Department of Natural Resources and Renewables is mandated with development, management, conservation, and protection of the province's natural resources. We have the potential for green hydrogen using offshore wind and have compatible pipelines and proximity to markets. A management regime for offshore wind and a regional assessment will support this. Legislation for the necessary codes and standards for underground storage and pipeline use are being developed.



www.novascotia.ca/natr Shawna Eason, Business Development Officer shawna.eason@novascotia.ca +1 (902) 424-6710

Physikalisch-Technische Bundesanstalt



PTB is promoting the technological development of the hydrogen economy in terms of metrology and safety engineering, and it is contributing to the setting up of a reliable infrastructure. PTB is already participating, together with other research partners from Lower Saxony, in the establishment of an innovation laboratory for hydrogen technology. In this laboratory, ideas are to be developed which are close to practical applications and can be implemented for research and transfer concepts.



www.ptb.de Frank Lienesch, Head of Division Legal and Int. Metrology"

Transport Canada - Zero Emission Trucking Program

The Zero Emission Trucking Program (ZETP) was launched in 2022 as part of Canada's Emissions Reduction Plan to accelerate federal, provincial, and territorial regulatory readiness and to conduct safety testing on zero-emission trucks.

www.tc.canada.ca/en/innovation-centre Jordan Wolfe, Deputy Director ZETProgram-ProgrammeCZE@tc.gc.ca

Legal services, public affairs, and consulting

ALPHA-EL Inc.

We are a Northern First Nations Consulting company, that is interested in pursuing green hydrogen projects in Canada.

www.alpha-el.ca John Jensen, President john.jensen@alpha-el.ca +1 (250) 661-9283



* Cox & Palmer

Cox & Palmer is a full-service Atlantic Canadian law firm. As the international community recognized Atlantic Canada's petroleum potential, we grew our own legal expertise to provide counsel to many working in that sector. More recently we have been at the forefront in building understanding of the continually evolving regulatory regimes in sectors like offshore wind, tidal, solar and hydrogen.



www.coxandpalmerlaw.com COX & PALMER Mohammad Ali Raza, Partner mraza@coxandpalmer.com

Efficiency Capital

Efficiency Capital (EC) began as a developer and investor of efficiency projects. Our clients and funders are now moving to net-zero solutions such as fuel switching, onsite generation and storage, fleet conversion and fueling infrastructure, and hydrogen as part of it. EC funds projects directly with clients that include real estate, manufacturing, logistics, and government, and will also work other projects developers to provide funding solutions to their project portfolios.



www.efficiencycap.com Matt Zipchen, President matt@efficiencycap.com

ENVINT Consulting

See our H2 resource report for British Columbia, at the website below.



www.envint.ca martin@envint.ca

ESMIA Consultants Inc.

ESMIA offers a cutting-edge expertise in energy-economy system modelling for deriving optimal energy/climate strategies. We provide advisory services that focus on analyzing complex problems using energy system models such as energy security, technology roadmap and energy transitions. ESMIA benefits from its proprietary NATEM model: the North American TIMES Energy Model. NATEM is the only optimization and economy-wide multi-regional energy system model in Canada.



www.esmia.ca Kathleen Vaillancourt, President kathleen@esmia.ca +1 (514) 794-5645

Global Public Affairs

Global Public Affairs is a public affairs organization that supports many hydrogen providers across the country. We provide stakeholder, government relations and communications services to the energy and other sectors.





www.globalpublicaffairs.com Ted Gruetzner, VP, Energy and Environment tgruetzner@globalpublic.com +1 (416) 458-2762

Gowling WLG | Canada & Germany

Gowling WLG is an international law firm with more than 1,500 legal professionals in offices across Canada, the UK, Europe, the Middle East and Asia. Our global Hydrogen Group is comprised of energy industry thought leaders deeply engaged in virtually every aspect of the rapidly evolving hydrogen sector - from conception, to planning, to financing, to project completion.



www.gowlingwlg.com/en Myron Dzulynsky, Partner, Co-lead Hydrogen Myron.Dzulynsky@gowlingwlg.com

Green Giraffe



Green Giraffe is the premier financial advisor for renewable energy projects, investors, and companies active in the energy transition. We offer bespoke financial advice, market intelligence and development services in all renewable technologies.



www.green-giraffe.eu Niels Jongste, Managing Director n.jongste@green-giraffe.eu +49 (0) 4087 4085 77

Mission Hydrogen GmbH



A hydrogen society will only be possible if we cooperate. The production and usage of green hydrogen is crucial to decarbonize the industry and the transportation sector and to protect the climate. Now is the time to strengthen the hydrogen economy, to cultivate it and to involve more companies, entrepreneurs, politicians, and the media. That's why we host free hydrogen webinars and the world's largest hydrogen events.

MISSION:

www.mission-hydrogen.de/en **HYDROGEN** contact@mission-hydrogen.de

SENCO Hydrogen Capital GmbH



SENCO was created by a passionate group of experienced investment professionals as well as leading industry- and hydrogen experts. As an independent, sector focused investment firm with deep hydrogen knowledge, SENCO drives decarbonization and creates long-term values for society, nature and its stakeholders. SENCO invests in infrastructure and infrastructure enabling businesses along the hydrogen value chain.



www.senco-capital.com Marcel Werner, Partner werner@senco-capital.com



Stikeman Elliott LLP

Stikeman Elliott's national power practice supports clients through all phases of project development of hydrogen power projects and related transactions. Clients benefit from our extensive experience and expertise to identify and address any and all risks that may arise. Our complementary regulatory and commercial expertise takes clients from initial development and permitting phases through commercial operations of hydrogen projects.

Stikeman Elliott

www.stikeman.com
Eric Hans Bremermann, Partner
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StrategyCorp Inc.

Government Relations, Strategic Communications and Management Consulting firm with deep expertise in energy policy and politics at the federal, provincial and municipal levels of government across Canada.



www.strategycorp.com
Garry Keller, Vice President
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Non-governmental and research organisations

Atlantik Brücke Canada | Canada & Germany

Atlantik Brücke Canada is a non-partisan non-profit organization committed to advancing the Canada Germany relationship. It is committed to finding solutions to strengthen the partnership on a variety of security, trade, and energy issues.



www.atlantik-bruecke.ca Nik Nanos, Chair nik@nanos.com +1 (613) 234-4666 ext 237

Canada Cleantech Alliance

Canada Cleantech Alliance is the voice of Canada's clean technology sector which includes companies in the hydrogen space.



www.canadacleantechalliance.ca Maike Althaus, Executive Director maike@canadaclean.tech +1 (647) 984-0618

Canadian Climate Institute

CCI is an independent, non-partisan climate research think tank. We have 3 streams of research: mitigation, adaptation, and clean growth. The Institute is conducting new



analysis related to clean hydrogen, assessing the financial and non-financial barriers to building large-scale clean fuels projects in Canada (e.g., green hydrogen production in Atlantic Canada).



www.climateinstitute.ca Jonathan Arnold, Acting Director, Clean Growth jarnold@climateinstitute.ca

Canadian Nuclear Laboratories

Canadian Nuclear Laboratories (CNL), Canada's premier nuclear science and technology organization, continues to make advances in research and technologies related to hydrogen. CNL is leading and participating in a series of projects encompassing four areas of research that are critical to the successful development and adoption of hydrogen here in Canada, including hydrogen production, storage, safety and utilization.

www.cnl.ca

Donald Ryland, Manager, Hydrogen Technologies donald.ryland@cnl.ca +1 (613) 584-3311 ext 43229

Chair in Energy Sector Management, HEC Montréal

Through its research, training and collaborations, the Chair in Energy Sector Management examines the role of various energy sources (incl. hydrogen), their complementarity and evolution, as well as the role of governments, businesses and society in transitioning the economy towards sustainable energy systems.

Chair in Energy Sector Management HEC MONTREAL www.energie.hec.ca Johanne Whitmore, Senior Researcher johanne.whitmore@hec.ca

Canadian Urban Transit Research and Innovation Consortium (CUTRIC)

CUTRIC is a non-profit organization that spearheads commercialization projects, advancing next-gen zero-carbon mobility solutions across Canada. It also helps transit agencies model performance of ZEBs and ASVs. CUTRIC initiated the Pan-Canadian Hydrogen FCEB Demonstration and Integration Trial in 2017. Anticipated funding and launch of Phase 2 of the trial in 2022 will deploy an FCEB value-chain in Mississauga. Phase 3 will bring together additional transit agencies to expand the trial.



www.cutric-crituc.org/about-us Josipa Petrunic, President and CEO CUTRIC • CRITUC josipa.petrunic@cutric-crituc.org +1 (647) 981-4020



Dalhousie University

We are in the department Industrial Engineering, Dalhousie University. We do research on renewable energy and its impact on sustainability of systems. In particular, we identidy key stakeholders, related decision, and the process to make optimal decisions by each stakeholder.

www.ie.dal.ca Hamid Afshari, Assistant Professor hamid.Afshari@dal.ca

Electricity Human Resource Canada (EHRC)

EHRC is a national NPO that conducts research & develops tools to support the human resources challenges and opportunities in the Canadian electricity sector. We create partnerships between stakeholders & aim to enable the industry to meet current and future needs for a safety-focused, highly skilled, diverse and productive workforce. As with other technological advancements in the energy industry, we seek to understand the implications of a growing green hydrogen industry on the skills outlook.



www.electricityhr.ca Sandiswa Sotashe, Business Development EHRC sotashe@electricityhr.ca +1 (613) 235 5540 ext 245

Fraunhofer-Institut für Schicht- und Oberflächentechnik IST



The range of services offered by IST includes both the development of materials and processes for electrolysers, hydrogen storage and fuel cells and the planning of the entire energy conversion chain. To increase the sustainability circular production must therefore developed beginning at the system level, and process chains must be designed to keep materials efficiently within the cycle. The application spectrum ranges from tanks for hydrogen, components of fuel-cell systems and bop components.



www.ist.fraunhofer.de/en/expertise Fraunhofer Jan Beuscher, Chief Scientist ist jan.beuscher@ist.fraunhofer.de

Greener Production Group at the University of Waterloo

We investigate electrochemical hydrogen production and ammonia conversion, membrane supported hydrogen separation and CO2 capture.



www.uwaterloo.ca/greener-production-group XiaoYu Wu, Assistant Professor xiaoyu.wu@uwaterloo.ca

* **HEC Montréal**

As a university researcher and professor in logistics and transportation management, I am interested in the role of hydrogen in transportation. I have conducted an extensive literature review on this topic and participated in conferences in the past three years.



HEC MONTRĒAL

www.hec.ca
Jacques Roy, Professor
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Hydrogen Science Coalition

The Hydrogen Science Coalition provides science- and evidence-based advice in relation to the uses of hydrogen for decarbonization. We seek to cut through the hyperbole and marketing of interested parties, which dominates the public discourse in relation to H2.



www.h2sciencecoalition.com
Paul Martin, Co-founder
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Institute for Hydrogen Research

Our mission is to advance the energy transition through innovation in advanced materials, engineering, and safety. The vision of the Institute for Hydrogen Research (IHR) is fundamentally multidisciplinary: the research areas encompass basic Science, Engineering, and Social Sciences. We promote the energy transition and train a skilled and versatile workforce capable of innovating in Hydrogen Energy and Materials.



www.irh.ca
Bruno G. Pollet, Director of the Green Hydrogen Lab
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ITEL - Deutsches Lithiuminstitut GmbH



We are rearranging the value chains broken by energy transition based on a new technology for lithium conversion where gypsum (desperately needed as coal power plants close - 50% deficit) and cement (direct reduction of ore - 30%) will be missing. Hydrogen will be an important fuel, and East German locations are close to the presently only hydroge pipeline.



www.lithiuminstitut.de
Professor Dr. Dr. h.c Ulrich Blum, CEO
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Nuclear Innovation Institute

The Nuclear Innovation Institute is an independent, not-for-profit organization that provides a platform for accelerating the pace of innovation in the nuclear industry. NII also builds connections between nuclear and other sectors, including the hydrogen sector, while leading public policy initiatives in support of hydrogen production from Canada's nuclear assets.





www.nuclearinnovationinstitute.ca Bruce Wallace, President & CEO info@nii.ca

Ontario Clean Technology Industry Association (OCTIA)

OCTIA advocates on behalf of the ON clean technology sector which includes players in the hydrogen space. In early 2022, OCTIA ran a program that helped companies with solutions in the hydrogen space advance their technologies. OCTIA also hosted a company showcase with the participants, connecting them with potential buyers and investors. OCTIA was part of the ON government's hydrogen strategy working group and provided input into the province's stakeholder consultations on the topic.



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Ontario Tech University

Located on Ontario Tech's north Oshawa campus, CERL is a world-class facility where researchers are working on the world's first lab-scale demonstration of a copper-chlorine cycle for thermochemical water splitting and nuclear hydrogen production. Using nuclear, solar, or other heat sources (such as waste heat from industrial plant emissions). Researchers at Ontario Tech University developed a full-scale Green Hydrogen production technology using a thermo-chemical Copper Chlorine cycle. It is currently scaled up for a pilot demonstration utilizing waste/process heat from industrial site.



www.cerl.ontariotechu.ca
Kamiel Gabriel, Professor
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Pollution Probe

Pollution Probe is a Canadian environmental NGO founded in 1969 that works with governments, industry, and the public, with a steadfast commitment to Clean Air, Clean Water, and a Healthy Planet. Pollution Probe is active on many hydrogen working groups. Pollution Probe's interest is in assessing hydrogen's potential throughout the energy system to help achieve net-zero emissions, from its use as a feedstock, to the electricity system and potentially for heating, to transportation.



www.pollutionprobe.org
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Projet de zone d'innovation Vallée de la Transition Énergétique

The mission of innovation zone is to decarbonize the industry, the ports and the urban environments in Quebec, and elsewhere. About hydrogen, we have on the Air Liquid



site at Bécancour, a 20MW PEM electrolyser that produce 8 tons per day of green hydrogen. Green hydrogen and hydrogen technologies integration are central in our zone, and we are on our way to build a H2 ecosystem in the region of Mauricie.

Simon Barnabé, Responsable de la programmation scientifique simon.barnabe@uqtr.ca

Reiner Lemoine Institut gGmbH



We are an independent non-profit research institution working towards a future with 100 % Renewable Energy in our three research units Transformation of Energy Systems, Mobility with Renewable Energy and Off-Grid Systems. In the field of hydrogen, we analyze regional potentials, do trainings and workshops, and we create and use open-source tools in order to model hydrogen value chains and its components.



www.reiner-lemoine-institut.de/en h2@rl-institut.de

Technical University of Munich



At the Technical University of Munich (TUM) far more than 80 employees work and conduct research in the field of hydrogen and Power-to-X. Within various schools, departments and institutes professors conduct excellent research with their academic staff and doctoral students. The transfer from research to application with industry and business and internal collaboration takes place through our TUM.Hydrogen and PtX.



www.mep.tum.de/en/mep/hydrogen-power-to-x Sebastian Fendt, Coordinator Network TUM H2 sebastian.fendt@tum.de +49 (0)89 2891 6207

The Transition Accelerator

We are a pan-Canadian charity that creates positive, transformational system changes that solve societal challenges and move Canada down viable pathways to a net-zero GHG future. We act as a catalyst to convene innovators, industry, researchers, and others into collaborative teams that advance Canada towards a net-zero future. We are working with groups to establish hydrogen hubs in key regions across the country and connecting them to create a pan-Canadian hydrogen economy.



www.transitionaccelerator.ca
Dinara Millington, Western Network Lead
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University of Alberta

I am a professor at the University of Alberta. My laboratory has facilities for the fabrication, characterization, and testing of hydrogen polymer electrolyte fuel cells and electrolysers. Furthermore, my group is involved in the development of computational



software for the analysis and design of fuel cells, electrolysers and methane thermal decomposition reactors, e.g., OpenFCST (www.openfcst.org).







www.esdlab.mece.ualberta.ca Marc Secanell, Professor secanell@ualberta.ca +1 (780) 490-8808

University of Bayreuth



The University of Bayreuth is a research-focused university in Northern Bayaria. Within our Focus Area "Energy Research and Energy Technology" and beyond, we can provide expertise in research, development, and testing along the entire hydrogen process chain. In its hydrogen strategy the University has set the objective of improving efficiency in the hydrogen process chain and focus on international collaboration.



www.wasserstoff.uni-bayreuth.de UNIVERSITAT Matthias Welzl, Coordinator Hydrogen Research matthias.welzl@uni-bayreuth.de +49 (0)921 5575 25

University of Calgary | | |



The professor is interested in the research regarding green hydrogen, and how green hydrogen can play a role in the decarbonization of the Canadian economy and energy system as Canada seeks to decrease its emissions to conform with international expectations regarding addressing climate change.

Michael (Mishka) Lysack, Professor mlysack@ucalgary.ca

University of Calgary, Faculty of Law

Expertise in Canadian and international energy law and policy, with a specialisation related to the regulatory project approval of integrated renewable energy, natural gas and infrastructure projects.

Dr. Rüdiger Tscherning, Associate Professor rudiger.tscherning@ucalgary.ca

University of Victoria

Institute for Integrated Energy Systems (IESVic) is working on developing sustainable energy system and clean technologies. Whole wide research is being conducted at IESVic on hydrogen activities including transient analysis of offshore wind energy integrated green hydrogen and ammonia production, modeling and experimental investigations on hydrogen and fuel cell systems, hydrogen as energy vector and storage media, monitoring and extraction of hydrogen from hydrogen blended natural gas.





Vancouver Community College ■◆■

We are currently developing training for the diagnosis, repair, service, and conversion of light- and heavy- duty hydrogen fuel cell powered vehicles and equipment.



www.vcc.ca bgriffiths@vcc.ca

Engineering companies and certification organisations

AECOM Energy ■◆■

AECOM offers services across the full Hydrogen Value Chain from production, storage, transport through to utilisation. We support our clients in feasibility studies, design, and implementation of hydrogen-based projects.



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Canadian Standards Association, operating as "CSA Group"

CSA Group is a global organization dedicated to safety, social good and sustainability. We are a leader in Standards Development and in Testing, Inspection and Certification around the world including Canada, the U.S., Europe, and Asia. Our mandate is to hold the future to a higher standard. As a leader in research and facilitation of standards development, CSA Group is engaged in multiple initiatives supporting the development of standards related to hydrogen.

www.csagroup.org

Melanie Pinatton, Strategic Initiatives Manager, Standards - Hydrogen melanie.pinatton@csagroup.org

CertifHy Canada Inc.

CertifHy Canada offers engineering services to perform LCA and carbon intensity calculations specifically focusing on the hydrogen sector. Canada has no national certification scheme (yet) but CertifHy intends to offer certification services once in place. CertifHy is also developing a more comprehensive certification scheme that will provide consumers with the information they need.



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CSR GeoSurveys Ltd.

CSR GeoSurveys Ltd. specializes in high resolution geophysical and geotechnical surveys; both marine and terrestrial. Our company supports the site evaluation, design and engineering phases of major infrastructure projects in both Canada and internationally.



EDL Anlagenbau Gesellschaft mbH



EDL is one of the leading technology-oriented plant engineering companies in Germany and offers expertise in engineering and contracting of greenfield, brownfield and revamp projects for refinery, petrochemical, chemical industries & the energy sector. With pioneering innovative technologies such as power-to-X (PtX) and biomass-to-X (BtX) for the production of green hydrogen, sustainable synthetic aviation fuels & chemical products EDL provides eco-friendly and economic solutions.



www.edl.poerner.de Dr. Michael Haid, CEO michael.haid@edl.poerner.de +49 (0) 3414 6644 00

FEV Europe GmbH



Activities are reaching from hydrogen-based powertrain and vehicle development (H2 combustion and fuel cell) over fuel cell and electrolyser testing (incl. test equipment dev.) and power-to-x plant layout.



www.fev.com Benedikt Heuser, Vice President FEV Energy heuser@fev.com

Fluor Canada Ltd.



Fluor provides professional and technical solutions to clients globally. We are an engineering, procurement, and construction services provider with expertise in blue/green hydrogen, gasification and hydrogen transportation/storage technologies and facilities. Our hydrogen experts can advise clients on the best-suited technologies based on operating and capital expenditure characteristics, leveraging our global experience in hydrogen facilities throughout design and integration of the project.

www.fluor.com



David Mercer, Director of Energy Transition +1 (403) 537-4941



* Hatch Ltd.

Hatch is an engineering consultant with over 65 offices around the world. We advise our clients in all kinds of engineering roles and execute related energy and other infrastructure as DB teams members or as EPC/EPCM.



www.hatch.com Alexander Pietralla, BD Manager alexander.pietralla@hatch.com +1 (250) 632-1614

ILF Consulting Engineers



ILF is one of the leading engineering companies with strong focus on energy industry and in particular green hydrogen, renewables as well as traditional oil & gas. The company dates back to 1967 and today has 2,500+ employees in 40 locations with close to 10,000 executed projects. With its main hub in Munich other offices in Germany include Essen, Hamburg, Bremen and Berlin while its operations in Canada since 2012 are based in Calgary, Alberta.



www.ilf.com

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Sacre-Davey Engineering Inc.

Sacré-Davey is a technology-led, full-service engineering company with experience in hydrogen extraction, purification, generation, compression, liquefaction, storage, distribution, pipeline blending, and end-use applications. We are working on several projects in NA, incl. a 20MW green H2 production plant in Ontario, an 88MW green H2 and O2 production plant in Quebec, and a 70MW green H2 plant in Washington state.



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SNC-Lavalin

SNC-Lavalin is a full service, global EPCM organization that supports other organizations with hydrogen project definition and execution.



www.snclavalin.com Alastair Perry, Vice-President, Renewables, Canada SNC·LAVALIN alastair.perry@snclavalin.com +1 (416) 427-7587

Standards Council of Canada

The Standards Council of Canada co-chairs with NRCan the Hydrogen Codes and Standards Working Group under the Hydrogen Strategy for Canada.





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TesTneT Canada Inc.



TesTneT Canada is owned by TesTneT GmbH. Combined, we are the world's largest high pressure test agency for hydrogen fuel systems and hydrogen storage/transport vessels. We can also perform testing of liquid hydrogen storage systems.



www.h2-test.net Craig Webster, Director of Technology cwebster@h2-test.net +1 (604) 244-6513

Tetra Tech ■*■

Tetra Tech is a leading, global provider of consulting and engineering services. We provide innovative technical solutions to our clients. We support global commercial and government clients focused on water, environment, sustainable infrastructure, renewable energy, and international development. We have extensive experience in hydrogen including technology selection, strategy and policy development, market assessment and permitting in Canada, US, and Europe.



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Tractebel Engineering

You can call on our consultancy and engineering services at any stage of a project's lifecycle, from conceptual or early planning studies, through construction and commissioning, up to operational support and rehabilitation.



www.tractebel-engie.com/en

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TÜV SÜD America



TÜV SÜD has experience over the whole value chain of hydrogen and life cycle of hydrogen technologies. Our experts have accompanied numerous successful and innovative projects over the past decades.



www.tuvsud.com/en-us

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Ports and marine services

Belledune Port Authority

The Belledune Port Authority's (BPA) 'Green Energy Hub' is rooted in clean energy development with hydrogen playing a critical role. Situated on the Atlantic coast with over 1,600 acres of industrially zoned land, the Port is a global exporter of industrial goods and suited to be a base for both domestic hydrogen production and export. Plans are in place to become the most advantageous and cost-efficient option for hydrogen buyers, creating a one-stop shop to supply Germany's hydrogen needs!

www.portbelledune.ca



Denis Caron, President & CEO caron@portofbelledune.ca +1 (506) 522-1203

CanPac Marine Services Inc

Canpac Marine provides industry and research facilities with resources, systems and personnel focused on subsea construction and long-term maintenance. We work on LNG facilities being built in BC and look forward to participating in the Hydrogen market.



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Capilano Maritime Design Ltd.

Capilano Maritime is a naval architecture firm experienced with the integration of hydrogen as a marine fuel and hydrogen fuel cells on board marine vessels.



www.capilanomaritime.com Chris Mulder, President cmulder@capilanomaritime.com +1 (604) 929-6475

e1 Marine

Hydrogen power for the marine sector: Onsite, onboard and on-demand. e1 Marine provides clean energy technologies, including advanced methanol to hydrogen generation products supporting the fuel cell industry. Our ground-breaking technology enables maritime operators to generate fuel-cell grade hydrogen onboard, or onsite, efficiently and safely – whenever and wherever they need it.



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LeeWay Marine

LeeWay Marine operates a fleet of hydrographic survey ad research vessels on the East Coast of North America and in the Canadian Arctic. We are deeply embedded with projects supporting the Canadian Navy on alternative fuel research and are pursuing alternative fuel options for our own fleet.



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Logistec Stevedoring Inc.

LOGISTEC Corporation provides specialized services to the marine community and industrial companies in the areas of bulk, break-bulk and container cargo handling in 53 ports and 79 terminals located in North America. LOGISTEC operates in the environmental industry providing services to customers for the renewal of underground water mains, dredging, dewatering, contaminated soils and materials management, site remediation, risk assessment, and manufacturing of fluid transportation products.

www.logistec.com



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Lorneville *

ISO 9001 fabrication, assembly, and construction services for industrial scale energy transition projects across Canada.



www.lorneville.com/energy-transition

Mike Rekrutiak, National Business Development Manager mike.rekrutiak@lorneville.com

+1 (403) 968-6100

Port of Argentia Inc.

Port of Argentia Inc. is a heavy industrial seaport featuring 625 metres docking facilities and over 9600 acres of land in its ownership. The Port is working towards the development of a wind to green hydrogen project and has signed an Option to Lease Agreement with a renewable energy developer.



www.portofargentia.ca

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Port of Baie-Comeau

Offering land and facilities for producing, storing, and handling green hydrogen. Port facilities for loading vessels.



www.portbcomeau.ca Karine Otis, Executive Director kotis@portbcomeau.ca

QSL International Ltd.

QSL is a key supply chain player in port terminal operations, stevedoring, marine services, logistics and transport throughout North America. We treat cargo with care, listen closely to our clients and are committed to making a difference. We develop innovative and efficient handling methods. That's why our engineering team works hand-in-hand with actors of the hydrogen industry for renewable solutions in our practices and activities as well as those of our clients and business partners.



www.qsl.com

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R.J. MacIsaac Construction Ltd.

R.J. MacIsaac Construction Ltd. (RJMI) operates a green ship recycling facility at the Port of Sheet Harbour. Our terminal facilities are ideally suited for construction marshalling and marine services support for offshore wind farms with integrated hydrogen production. RJMI also aspires to convert 100% of our current electrical energy consumption and equipment operation to hydrogen.



www.rjmacisaac.ca

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Saint John Port Authority

Port Saint John is positioned to play a leading role in supporting the growth of nonemitting fuel sources locally, and globally including hydrogen. We believe our port stakeholder's facilities can be hydrogen ready for export in the future, and in the meantime continue to engage in attracting new entities to our region to establish their own hydrogen activities to support local and global demands.



www.sjport.com

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St. John's Port



The Port of St. John's is a strategic and crucial transportation hub for the marine and transportation industries. Conveniently situated near the resource-rich Grand Banks and busy shipping lanes, it remains a key gateway providing access to an extensive network of companies. The SJPA is currently exploring how the port may best support the regions/Canada's broad energy policy objectives.



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Renewable electricity producers and fuel cell companies

AVL Fuel Cell Canada

AVL Fuel Cell Canada ("AVL FCC") was founded in 2018 with headquarter in Vancouver, Canada. AVL FCC is part of AVL List GmbH ("AVL"), the world's largest independent company for development, simulation and testing in the automotive industry, and in other sectors. AVL FCC is AVL's global center of expertise for PEM (Proton Exchange Membrane) fuel cell stacks and performs cutting-edge PEM fuel cell stack design and development for all applications, including automotive, heavy duty and marine.



www.avl.com/-/avl-fuel-cell-canada Simon Fraser, Business Development Manager simon.fraser@avl.com +1 (604) 817-8331

Ballard Power Systems ***

Ballard Power Systems manufactures PEM fuel cell power products from 1 kW to multiple MW's covering bus, truck, rail, marine, off-road and stationary applications. Ballard is a global company with local presence and customer support in US, EU, UK and China. We deliver fuel cell power for a sustainable market.



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cellcentric GmbH & Co. KG

cellcentric develops, manufactures and sells fuel cell systems for automotive and stationary applications.





www.cellcentric.net

Prof. Dr. Christian Mohrdieck, Chief Commercial Officer christian.mohrdieck@cellcentric.net

ENERCON Canada Inc.



ENERCON is looking forward to collaborating on supplying wind farm renewable energy to green hydrogen projects. ENERCON is an international leader in wind turbine design as well as manufacturing and is known for its gearless generator technologies, high quality standards, and comprehensive long-term service agreements. To this date, more than 31,600 turbines have been installed worldwide representing more than 57.7 GW of installed capacity, thereof 2.4 GW in Canada.



www.enercon.de/en/home/

Eva Lotta Schmidt, Director of Corporate Relations eva-lotta.schmidt@enercon.de

Hydro-Québec **



Hydro-Québec is a leading electrical power generation, transmission and distribution company operating in Québec. Hydro Québec relies on its world-renowned research facilities to promote synergy and remain at the leading edge of technology. Over 500 experts pool their expertise in support of the transition of every aspect of Québec's energy mix, from electricity generation to consumption, including hydrogen R&D activities.



www.hydroguebec.com/about Myriam Loignon-Toussaint

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Loop Energy Inc.



Loop Energy is a leading manufacturer of hydrogen fuel cell systems targeted for the electrification of commercial vehicles including buses and trucks. With our patented eFlow™ architecture, our products can deliver up to 16% better fuel efficiency, 90% higher peak power and 10x better current density uniformity versus industry equivalent. This significantly increases performance and lowers cost of ownership for hydrogen fuel cell vehicles.



www.loopenergy.com

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MACEAS GmbH



We are experts in the field of leak testing in combination with semi and full automation as well as assembly processes. We are focusing on hydrogen and fuel cell as well as electrolyser applications.





www.maceas.com Daniel Schönbohm, Head of Sales d.schoenbohm@worthmann-ma.de

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Roswall Development Inc.

Roswall is the sole provider of retail clean electricity in Nova Scotia. Awarded a retail licence in 2021, Roswall is developing renewable energy generation projects for retail sales to customers in 2023/2024. Roswall has been working with a number of Hydrogen stakeholders to provide the lowest overall price of clean electricity for Green Hydrogen and other new businesses in Nova Scotia, while optimizing use of electrolysers and other production processes



Daniel Roscoe, Chief Executive Officer dan@roswall.ca +1 (902) 489-6787

SFC Energy AG



SFC Energy AG is a leading provider of hydrogen and direct methanol fuel cells for stationary and mobile hybrid power solutions. With the Clean Energy and Clean Power Management business segments, SFC Energy is a sustainably profitable fuel cell producer. The Company distributes its award-winning products worldwide and has sold more than 55,000 fuel cells to date. The Company is headquartered in Brunnthal/Munich, Germany, operates production facilities in the Netherlands, Romania, and Canada.



www.sfc.com

Bjoern Ledergerber, Senior Vice President Bjoern.Ledergerber@sfc.com

Wajax

Wajax Equipment, the exclusive dealer for Hyster® products across Canada, will sell and deploy the fuel cells manufactured by Nuvera Fuel Cells and provide comprehensive repair and maintenance services for these clean hydrogen-fueled systems to customers in Canada. Wajax motive power team has trained and certified specialists and technicians who helps the customers to convert their fleet to Hydrogen powered forklifts and maintain these products based on local regulations.



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Wind Project Inc.

Wind Project Inc. is developing wind farms on Canada's East Coast to generate green hydrogen for export.





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Technology providers

AMPD Ventures **■***■



We have signed an MOU with a German company UFB - Unleash Future Boats who are manufacturing, zero emissions, Hydrogen powered, autonomous boats. Our company, AMPD Technologies is providing the computing power to control the autonomous boats being tested in Europe and then Canada. A great example of German/Canadian partnership.

www.ampd.tech

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ARI-Armaturen Albert Richter GmbH & Co. KG



ARI-Armaturen is a leading international developer, manufacturer, and distributor of valves as well as complementary services linked to the control, isolation, safety, and steam trapping of liquid and gaseous media. With our broad portfolio, we offer customized solutions for the entire hydrogen and Power-to-X process chain. To this end, with regular contact to users and institutions, we use state-of-the-art materials for direct contact with hydrogen.



www.ari-armaturen.com Jan-Eric Fischer, Project Manager

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Auma Riester GmbH & Co. KG



AUMA develops, manufactures, and offers electric actuators for valves for production, transport, storage and use of hydrogen and also for water treatment. We also offer engineered solutions and systems and as well after-sales-services. AUMA is a global market leader for electric actuators in different market segments with highest technological competencies.

www.auma.com

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Aurora Hydrogen

Aurora Hydrogen is developing a low-cost, distributed, and emission-free hydrogen production technology. It utilizes efficient microwave energy to convert natural gas into hydrogen and solid carbon without generating any CO2 emissions. Compared to an electrolyser, it uses 80% less electricity and consumes no water. The technology is highly scalable; units can be installed anywhere and can scale from small fuelling stations to the largest industrial applications.



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Boll & Kirch Filterbau GmbH



BOLL & KIRCH is the specialist for the filtration of liquids and gases. We offer filtration solutions for thermosolar power plants, geothermal energy, and hydropower plants (to protect generators and turbines). In addition, we offer filtration of cooling and sealing water, as well as filtration of caustic potash.



www.bollfilter.com

Max Wagener, Business Development Manager max.wagener@bollfilter.com

BOSCH -

BOSCH is a global technology provider. With our ELECTROLYZER business we will supply the heart of the ELECTROLYZER to the market: the stack / smart module. The smart module converts water and clean electricity to H2. We know how to scale and mass produce. Our digital control, cloud connection, sensors and power electronic (automotive quality) and the stack lead to our SMART MODULE.



www.bosch.com

Matthias Ziebell, Vice President Business Development & Sales ELECTROLYZER matthias.ziebell@bosch.com

CTM Cryogenics (Formally Complete Truck Maintenance) ■*****■

CTM Cryogenics is a third-generation family-owned service center that offers repair and refurbishing services for specialized vehicles such as Cryogenic trailers, tanks for compressed gases and other vacuum-sealed transport trailers. In the past, CTM has been a part of the manufacturing and assembly of hydrogen storage tanks and fuel cells. We are currently preparing to provide these services again.



www.ctmcryo.ca
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Cummins Inc.



Cummins' fuel cell power modules deliver a zero-emission solution for trucks, buses and commuter trains around the world. Our electrolyser product line includes large scale indoor HyLYZER-1000 solutions and outdoor containerized HyLYZER-500 systems for green hydrogen production. At our Mississauga facility, we do R&D, product platform design and manufacturing for our PEM fuel cell power modules and electrolyser systems. We install and commission our electrolyser plants around the world.



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Enapter GmbH



Enapter is a Electrolyser Manufacturer.



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Freudenberg & Co. KG



Freudenberg is a family-owned global technology company with about 50,000 employees worldwide. Freudenberg supports the hydrogen economy by providing components & systems for diverse hydrogen applications like electrolysers, fuel cells, and tank systems. We are also a component supplier in the field of renewable energy.



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GoGaS Goch GmbH & Co. KG



We develop and manufacturer Hydrogen Burners and solutions for manufacturing processing and Building Solutions (non-residential).



www.gogas.com

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Heraeus Deutschland GmbH & Co. KG



Heraeus has been committed to precious metals for more than 160 years. We are offering a comprehensive line of homogeneous and heterogeneous catalysts. For P2X we are now providing electrocatalysts for hydrogen evolution in PEM electrolysers and



hydrogen application in PEM fuel cells. In addition, catalysts from the HeraPur® series are used at various stages of the P2X process chain to purify gas streams.



www.heraeus-precious-metals.com Julia Keck julia.keck@heraeus.com

Hydrogen In Motion Inc.

Hydrogen In Motion Inc. (H2M) founded in 2014 in Vancouver, Canada, has engineered a proprietary nanomaterial that selectively attracts hydrogen under ambient temperature and low pressure; providing twice the hydrogen in the same volume at half the cost. H2M conformable tanks will revolutionize the industry, dramatically driving down capital and operating costs and open new markets from drones and portable devices to every size of mobility application to utility scale energy storage.



www.hydrogeninmotion.com Hydrogen In Motion Grace Quan, President & CEO grace.quan@hydrogeninmotion.com +1 (778) 888-9590

Hydrogen Optimized *

High power Electrolyser Manufacturer.



www.hydrogenoptimized.com Joseph Habchi, Director of Business Development joseph.habchi@hydrogenoptimized.com

* iHAT Technologies Inc.

iHAT designs, develops, and delivers disruptive green technologies, that are safer, and more operationally, cost and environmentally effective, which engage both incumbent and new inclusive labor through the provision of updated and new skills training.



www.iHAT-Technologies.com David Rai, President david.rai@iHATtechnology.com

Industrial Analytics IA GmbH

Industrial Analytics is an AI-IoT startup that offers an AI monitoring solution for maintenance and process optimization for machinery and industrial processes. We recently started to monitor a hydrogen compressor.

www.industrial-analytics.io

Tania Schulze, Business Developer INDUSTRIAL ANALYTICS tania.schulze@industrial-analytics.io +49 (0)30 6293 88116



Ionomr Innovations



lonomr Innovations is revolutionizing electrochemistry with newly developed ionexchange membranes and polymers for clean energy. Ionomr's Pemion® and Aemion® technologies provide cost, performance and sustainability advantages for fuel cells, hydrogen production and carbon capture, use and conversion. Leveraging technology developed at Simon Fraser University, Ionomr was founded in 2018 and employs 43 professionals in Vancouver, Canada and Rochester, New York.



www.ionomr.com Andrew Belletti, Sr. Director, Sales & Marketing belletti@ionomr.com +1 (403) 466-3367

KLINGER GmbH



We are specialist in static sealing. Gaskets for hydrogen applications are important to get a safe tightness in all steps from generation of green hydrogen through piping up to the end use of it. Klinger is known as a sealing specialist since 1886.



www.klinger.de Norbert Weimer, Branch Manager norbert.weimer@klinger.de +49 (0) 172 6870 271

KSB SE & Co. KGaA



With pumps, valves and services, KSB serves all hydrogen production and conversion technologies. KSB products offer a long service life and the best possible energy efficiency over the entire lifecycle. KSB is also involved in funding projects and pursues business models that arise in the hydrogen environment - all to further develop this technology in the interests of a greener future and to advance the hydrogen economy.



www.ksb.com/en-de/applications Ulrich Stahl, Business Strategist and H2 Project Lead ulrich.stahl@ksb.com +49 (0) 1602 9671 79

MAHLE International GmbH



MAHLE is a leading international development partner and supplier to the automotive industry with customers, in the passenger car and commercial vehicle sectors. The technology group, which was founded in 1920, is working on the climate-neutral mobility of tomorrow with a focus on electromobility and thermal management as well as other technology fields to reduce CO2 emissions. Half of all the vehicles in the world now contain MAHLE components.



www.mahle.com info@mahle.com



MAN Energy Solutions SE

Decarbonization is at the heart of MAN Energy Solutions future strategy. A comprehensive portfolio (products & solutions) for the whole Hydrogen and eFuel value chain: we have a lot to offer & are a strong and reliable partner: PEM electrolysis, turbo machinery (H2, SNG, CO2 etc.), eFuel synthesis (e.g. SNG, Methanol) or a broad portfolio of future fuel ready large engines (for ship propulsion, stationary power generation) & much more. Just to name some examples.



www.man-es.com Dr. Florian Gruschwitz, Business Development florian.gruschwitz@man-es.com +49 (0) 151 6807 8588

MARPOSS GmbH



MARPOSS offers quality testing and assurance, machine control and process monitoring for industrial battery production, combined with a wide range of technologies, standard products, and customised applications.



www.marposs.com/eng Michael Klenk, Product Specialist michael.klenk@de.marposs.com +49 (0) 7151 2054 286

Moehwald GmbH



Moehwald belongs to the Bosch Group and is represented all over the world since almost 50 years at the most successful enterprises in the automotive industry with State-of-the-Art measurement and testing technology. Since years we also focus on test equipment for PEM and SOFC fuel cells and develop testing technology solutions for different integration levels (cell, short stack, full stack, system, BoP components). New developments are made for testing in the electrolysis field.



Bosch Group

www.moehwald.de moehwald Peter Wommer, Sales Manager p.wommer@moehwald.de

NEXT Compression

NEXT Compression has a long history of gas compression packaging and has a team working on encompassing H2 compression packaging as a standard offering.



www.nextcomp.ca Shelby Hinch, Development Manager shelby.hinch@nextcomp.ca +1 (403) 809-2025



Next Hydrogen Solutions Inc.

Founded in 2008, Next Hydrogen makes it economical to generate hydrogen on site and at scale by enabling unprecedented operational flexibility through its revolutionary electrolyser design.



www.nexthydrogen.com NextHydrogen Ed Borkowski, Director, Marketing eborkowski@nexthvdrogen.com

NORAM Group | *

NORAM supplies proprietary engineering and equipment packages to the process and resource industries worldwide. A key part of our business model is the scale-up and commercialization of novel process technologies. Our acquisition of Membrane Reactor Technologies positioned us at the forefront of metallic membrane hydrogen separators, which provide mechanically simple and effective means of producing highpurity hydrogen from produced, reformer, re-use, and waste hydrogen streams.



www.noram-eng.com Ira Wolff, Director Special Projects iwolff@noram-eng.com 9roup +1 (604) 681-2030

Nordex SE

Nordex Group is one if the worlds leading wind turbine manufacturers with more then 35 years of experience. For green hydrogen we are using our deep understanding of renewable energy technologies, our engineering capabilities as well as capabilities for project planning, construction and operation that is required for renewablesbased hydrogen production.





www.nordex-online.com Francisco Javier Ramirez, Director framirez@nordex-online.com

Pennecon Hydraulic



We have been in business for over 40 years in Nova Scotia, Canada. Currently there is no hydrogen development on the east coast of Canada, but we are a versatile company that prides itself with the ability to adapt to changing business climate and new opportunities. We view hydrogen development as an essential path forward to provide clean, sustainable, affordable energy for global citizens and business.

www.pennecon.com



Brad MacRae, Operations Manager brad.macrae@pennecon.com +1 (902) 468-6640



Phoenix Contact



With products, solutions, and services for electrification, networking, and automation, Phoenix Contact is a global technology company with many years of experience in the process industry that supports all parts of the hydrogen value chain (i.e., in production, distribution and storage as well as utilization of hydrogen). Phoenix Contact currently employs around 20,300 people worldwide and generated sales of 2.97 billion euros in 2021. Phoenix Contact is present in more than 100 countries.

www.phoenixcontact.com

Thomas Oesselke, Business Development Manager PtX toesselke@phoenixcontact.com

Pulsenics Inc.

Pulsenics develops capabilities to diagnose and manage the performance of electrolysers that produce green hydrogen without the need for shutdown or disruption.



Redrock Power



Developers of high-power fuel cell systems for extreme-duty applications.



www.rrpsys.com Paul Paterson, CEO paul.paterson@rrpsys.com +1 (902) 218-5820

Rheinmetall Canada Inc.



Since September 2021, Rheinmetall has also been part of the "Wasserstoff- und Brennstoffzelleninitiative" (hydrogen and fuel cell initiative), which is supported financially by the German government and the German state of North-Rhine Westphalia. Rheinmetall is an industrial partner in the research and development consortium of the "Zentrum für Brennstoffzellen Technik" (the hydrogen and fuel cell center) in Duisburg.



www.rheinmetall.com/en Alain Tremblay, VP Business Development RHEINMETALL atremblay@rheinmetall.ca

Rolls-Royce Power Systems AG

Rolls-Royce Power Systems pioneers the power that matters to connect, power and protect society. Our mission is climate neutrality by 2050. 'Net Zero at Power Systems' plots the way ahead. We are active in the entire hydrogen Ecosystem including production, decentralized energy production or future propulsion systems for trains,



marine and aviation. Our variety of hydrogen technologies include electrolyser, mtu hydrogen fuel cell solutions, and mtu hydrogen engines.



www.mtu-solutions.com/eu/de

Dr. Daniel Chatterjee, Director Technology Management daniel.chatterjee@ps.rolls-royce.com

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Rötelmann GmbH



Leader for hydrogen shut-off and control technology mainly ball valves, check valves, and pressure regulator.



Peter Hahn, Head of Research & Development ph@reotelmann.de

RUNWITHIT Synthetics Inc.

RUNWITHIT Synthetics creates advanced simulations of hyper-localized hydrogen supply and demand systems for cities and regions to inform, design, and de-risk adoption, economics, investment, infrastructure, policy, and regulatory environments. We enable "in silico" trials through our Synthetic Modelling Platform to calculate all the impacts informing and accelerating novel, de-risked, effective innovation adoption, policy, and investments of the hydrogen economy as we move toward net-zero.



www.rwisynthetics.com Myrna Bittner, CEO myrna@runwithitsynthetics.com +1 (780) 999-3755

Siemens Canada Limited



Low carbon hydrogen is an important building block aiming at decarbonizing entire industries. Siemens is committed to helping customers transition to a clean energy future. Siemens supplies core components for Electrification, Automation and Digitalization. With our hydrogen-enabled portfolio, we serve Process OEM, EPC and end customers to build and operate equipment modules or entire plants along the hydrogen value chain – from H2-production, conversion, storage and transport to usage.



www.new.siemens.com/global/en
Umer Farooq, Hydrogen Account Manager
umer.farooq@siemens.com



Siemens Energy Canada

Siemens Energy is one of the world's leading energy technology companies and covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, hybrid power plants operated with hydrogen, power generators, transformers and electrolyzers. Silyzer 300 is the latest, most powerful product line in the double-digit megawatt range of Siemens Energy's PEM electrolysis portfolio. Silyzer 300's modular design makes unique use of scaling effects to minimize investment costs for largescale industrial electrolysis plants. The optimized solution results in very low hydrogen production costs thanks to high plant efficiency and availability.



www.siemens-energy.com

Christopher Norris, Director, Business Development, Hydrogen Business Unit christopher.norris@siemens-energy.com

Carsten Hasbach, Senior Director carsten.hasbach@siemens-energy.com +49 (0)152 0438 5629

Sunfire GmbH



Sunfire is a global leader for industrial electrolysers addressing a key challenge of today's energy system: Providing renewable hydrogen and Syngas as substitutes for fossil energy sources. Based on alkaline and solid oxide (SOEC) technologies, Sunfire's electrolysers enable the transformation of energy-intensive sectors such as chemicals, fuel, and steel. Sunfire employs more than 400 people in Germany and Switzerland and is backed by leading strategic and financial investors.



www.sunfire.de

Christopher Frey, Senior Manager Public Affairs christopher.frey@sunfire.de

SYPOX



SYPOX is the first start-up that offers new technologies to electrify chemical processes. The technologies rely on a simplified design viable for both small-modular applications and big industrial plants.



https://www.sypox.eu SYPOX Gianluca Pauletto, CEO gianluca.pauletto@sypox.eu

thyssenkrupp nucera



thyssenkrupp nucera offers world-leading technologies for high-efficiency electrolysis plants. The company has extensive in-depth knowledge in the engineering, procurement, and construction of electrochemical plants and a strong track record of



more than 600 projects with a total rating of over 10 gigawatts already successfully installed. With its water electrolysis technology to produce green hydrogen, the company offers an innovative solution on an industrial scale for green value chains.



http://www.thyssenkrupp-nucera.com Dr Elisabeth Dietl, Global Government Affairs elisabeth.dietl@thyssenkrupp-nucera.com +49 (0) 1737 1711 45

tmax Group



tmax focuses on the insulation of components in the high temperature range (>500° C). Our scope is the development and manufacturing of customer specific insulation solutions. From our 45+ years of experiences in the field of high temperature insulation, we see significant potential for efficiency increase and cost-savings through our solutions in the area of high temperature fuel cells and electrolysis.



www.tmaxgroup.com

Jesco Gumprecht, Director Corporate & Business Development jesco.gumprecht@tmaxgroup.com

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Umicore AG & Co. KG



Umicore is a materials technology group organized in 3 business groups: Catalysis, Energy & Surface Technologies and Recycling. Umicore has industrial operations on all continents and serves a global customer base; it had a turnover of 3,2 billion € without metal in 2020 and currently employs some 11.000 people. Umicore is developing and producing Fuel Cell and electrolyser catalysts since more than 20 years and is recovering Platinum Group metals from end-of-life Fuel Cells and electrolysers.

www.umicore.com



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YNCORIS GmbH & Co KG



As we are Infrastructure provider (pipelines & electricity) for our chemical park area, we would like to serve our clients within our chemical park with hydrogen. locally produced H2 (via electrolysers) as well as pipeline H2 will be needed to achieve our CO2-neutral aim by 2035.

www.yncoris.com



Thomas Theisen, Director Facility & Energy Management thomas.theisen@yncoris.com +49 (0)22 334 866 57



Woodward L'Orange



Supplier for Hydrogen dosing/injection components for large internal combustion engines, supplier of large Fuelcell BoP components.



www.woodward.com Michael Willmann, Director technology michael.willmann@woodward.com +49 (0)176 1790 0554

Project developers, hydrogen producers, and technology providers

ABO Wind AG



ABO Wind AG is a globally successful project developer for renewable energies and hydrogen with >1000 employees, a track record of 4 GW and a project pipeline of 19 GW. The company is based in Germany and active in Canada since 2017 with two offices in Calgary and Halifax. In the Maritimes, we develop large-scale hydrogen and ammonia projects based on onshore wind power in three clusters in Nova Scotia, New Brunswick, and Newfoundland.



www.abo-wind.com

Fabian Hinz, Head of International Business Development Hydrogen

fabian.hinz@abo-wind.de

Robin Reese, Chief Development Officer, ABO Wind Canada Ltd. robin.reese@abo-wind.com

Admira Distributed Hybrid Energy Systems Inc.

Design of Green Hydrogen gaseous and liquid systems and integration with Liquid Air systems.

www.admiradhes.com Sujit Sengupta sujit.sengupta@admiradhes.com

Air Products Inc.



Air Products serves energy, environment, and emerging markets - providing industrial gases, equipment and expertise to many industries. Hydrogen and Air Products play a key role in the energy transition.

- world's leading hydrogen producer- over 110 production facilities and 9,000 tons daily capacity.
- 6 decades of hydrogen experience/knowledge including production, distribution, storage, and dispensing
- Investments of about \$12 billion to deliver carbon-free and low-carbon hydrogen to the world.



www.airproducts.com

https://www.airproducts.com/company/news-center



ALTABEC Energy Inc.

Our mission is to accelerate the energy transition and to maintain the global energy matrix 100% clean and renewable. Our activities are in energy efficiency, renewable **Projects** energies. and hydrogen technology solutions. include: the MobHy Project (full conversion of a class 8 ICE truck into FCEV, GRHy Project, (produce Green Hydrogen at a large scale), and TURHy Project (produce Turquoise Hydrogen using Pyrolysis).



Ivan De La Cuesta, Founder, President & C.E.O. ivan. delacuesta@altabec.com +1 (514) 913-7819

ATCO Ltd.

ATCO is a leader in clean energy across its operations and particularly within its nonregulated Energy Infrastructure business, which is focused on bringing clean energy solutions to our customers. ATCO Energy Infrastructure is an early mover in the hydrogen economy, pursuing line-of-sight projects producing clean hydrogen and ammonia in the industrial and transport sectors, across our geographic footprint of North America, Australia and Chile.



www.atco.com

Steven Kley, Manager Corporate Development and Strategy steven.kley@atco.com

Atura Power | *

Atura Power is implementing a low-cost, low-carbon hydrogen program that will help reduce greenhouse gases, while supporting the development and adoption of a key clean-energy source on a path to an economy wide net-zero emissions future. As an enabler of clean energy, Atura Power is positioned to help build the hydrogen economy in Ontario. Atura Power is a subsidiary of Ontario Power Generation (OPG).

www.aturapower.com

Kelly Grieves, Acting Director - Hydrogen Business

BASF

BASF plans to implement technologies like electrolysis and methane pyrolysis. The latter is currently being developed as part of our Carbon Management R&D program and is expected to be ready for implementation from around 2030 onwards. The use of electrolysis is planned to be implemented earlier in a pilot plant. BASF is engaging in various initiatives like the EU Clean Hydrogen Alliance, GET H2 and the initiative Collaborative Innovation for Low-Carbon Emitting Technologies.



Claudia León, Head of Business Development, BASF Canada We create chemistry claudia.leon@basf.com



Bear Head Energy

Bear Head Energy is developing a large-scale green hydrogen and ammonia production, storage and export project in Point Tupper, Nova Scotia with hydrogen electrolyser capacity of over two gigawatts. Bear Head is owned by Buckeye Partners LP, a wholly owned investment of the IFM Global Infrastructure Fund. As part of the project's phased development, Buckeye plans to partner with onshore and offshore renewable energy developers to build out a large-scale green hydrogen hub for Atlantic Canada.



www.bearheadenergy.ca Paul MacLean, COO & Country Manager paul.maclean@bearheadenergy.ca +1 (902) 448-7431 +1 (902) 448-7431

Carbonation Bioénergies Inc.

Carbonaxion Bioénergies develops, owns, and operates a variety of renewable energy projects and green solutions. Amongst other initiatives, Carbonaxion is currently carrying out the technical and economic feasibility study of a Synthetic Renewable Natural Gas project using green hydrogen and biogenic carbon dioxide.

www.carbonaxion.com



Christian Carrier, VP, Technology & Innovation christian.carrier@carbonaxion.com +1 (418) 654-8561

Cariboo Low Carbon Fuels Ltd.

Cariboo is a private entity based in Western Canada, committed to the success of our Energy. Cariboo will be the first large-scale, low-cost Green Hydrogen producer in Western Canada. Cariboo will source reliable low-cost renewable energy, using proven electrolysis technology to deliver Green Hydrogen by working with local and regional First Nations business partners. Cariboo is developing one of Canada's largest, clean energy infrastructure projects, with significant room to grow.



www.cariboolcf.com Bob Blattler, CEO & Founder bob.blattler@cariboolcf.com +1 (403) 510-5771

CHAR Technologies Ltd.

CHAR's proprietary high temperature pyrolysis (HTP) technology processes low value mill residuals and wood wastes into high value renewable energy and bioproducts, such as renewable natural gas (RNG), green hydrogen fuels, biocarbons, and CleanFyre biocoal, a carbon neutral drop-in replacement for steel making coal.



www.chartechnologies.com

Galen Cranston, Manager of Community and Government gcranston@chartechnologies.com



Chemtrade Logistics Inc.

Chemtrade is a Canadian Chemical Company specialized in Inorganic Chemistry. Activities are across North America and Brazil. 3 Main Business Units: Water Treatment Chemicals, Specialty and Ultra Pure Chemicals and Electro-Chemicals. Our ElectroChem activity is producing Sodium Chlorate and Chlor-Alkali through Brine Electrolysis. As a by-product of this production, we are getting a very large excess (> 25000 MT) of Green Hydrogen and looking for opportunities to monetize it like Green Ammonia.



www.chemtradelogistics.com
Philippe Morin, Hydrogen Business Director
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CleanInnoGen Energy Solutions Ltd.

CleanInnoGen is taking a breakthrough heat to hydrogen technology from lab to market. It only requires up to 80% less electricity than a normal water electrolyser. A disruptive solution of on-site waste heat to hydrogen systems is under development for heavy industry clients (cement, steel, chemical industry). In the future, CleanInnoGen's large-scale commercial hydrogen plants powered by renewable heat will be an important part of the global affordable green hydrogen supply.



www.cleaninnogen.com Victoria Xu, Co-Founder & CEO victoria.xu@cleaninnogen.com +1 (343) 883-1369 ext 102

Clem Geo-Energy Corp. ■*■

Clem Geo-Energy Corp. is a renewable energy developer. For some of our projects, we are considering pairing renewable energy with hydrogen production and have completed preliminary planning for this project work. We are also working on partnerships for these facilities. Some of this work could be fast tracked with a clean fuel off-taker, such as a German or European group. We would be excited to have more discussions around this topic.



www.clemgeo.com Charlene Beckie, CEO cbeckie@clemgeo.com +1 (403) 200-9833

dynaCERT Inc. / dynaCERT GmbH

dynaCERT Inc. is a worldwide operating Carbon Emission Reduction Technology Company. The headquarters are in Toronto, Canada, and its European subsidiary dynaCERT GmbH, in Lahr, Germany. dynaCERT provides a global solution to reduce pollution. The HydraGEN™ Technology reduces carbon emissions and fuel consumption through a on-board electrolysis unit. By optimizing fuel efficiency, fuel consumption is reduced.





www.dynaCERT.com Enrico Schlaepfer, Vice President of Global Sales eschlaepfer@dynaCERT.com

E.ON Hydrogen GmbH



E.ON is an international investor-owned energy company, which focuses on energy networks and customer solutions. As one of Europe's largest energy companies with around 72,000 employees and more than 51 million customers, E.ON plays a leading role in shaping a clean, digital, decentralized world of energy. With its Hydrogen and Green Gas unit, E.ON is actively supporting the development of a hydrogen economy and is pursuing numerous projects to make green hydrogen available to its customers.



www.eon.com/en/hydrogen
Jost Ahrens, Vice President Green Gas Originations
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Enbridge Inc.

Enbridge Inc. is a leading energy infrastructure company, with operations across North America and Europe. Our core businesses include Liquids Pipelines, Gas Transmission and Midstream, Gas Distribution and Storage, and Power Operations. Enbridge is leading across Canada in power-to-gas, hydrogen, associated technologies, and the many power-to-gas offshoots as demonstrated by our various initiatives, including the Markham power-to-gas plant and the Gatineau electrolyzer plant.

www.enbridge.com



Islam Elsayed, Government Relations Specialist islam.elsayed@enbridge.com +1 (416) 949-2684

Énergir •••

Research and development activities to determine whether our infrastructures could allow for a % of hydrogen blended with natural gas. Corporate interest also in other links of the value chain of hydrogen, among other things production of green hydrogen.





www.energir.com/en
Vincent Regnault, Executive Director
vincent.regnault@energir.com

EverWind Fuels Company

EverWind Fuels is developing a large-scale, multi-phase green hydrogen/ammonia production facility in Nova Scotia. EverWind will be one of the first operational facilities in North America given its existing terminal with permits and deep-water docks. The site is strategically located with a world-class wind resource and ability to accommodate the largest vessels for global shipment. The site has access to over 20GW of renewable power, enabling annual production of up to 10mm tonnes of ammonia.





www.everwindfuels.com Matthew Tinari, Chief Financial Officer matthew.tinari@everwindfuels.com +1 (631) 434-5388

Evonik Operations GmbH

Evonik Operations GmbH is a chemical company which produces and consumes hydrogen for its and in its chemical processes and also supplies hydrogen to third paries located at its sites. Furthermore, Evonik is a partner in the GET H2 Nukleus project to establish a German hydrogen infrastructure.



www.evonik.de **EVONIK** Axel Rogat, Senior Energy Manager axel.rogat@evonik.com

Fortescue Future Industries

Fortescue Future Industries (FFI) is focused on converting renewable energies to green hydrogen, green ammonia, and other green industrial products for global export. Presently the global leader in creating this sector, FFI has a global footprint spanning over 30 countries and regions with the corporate goal of producing 15mtpa of green hydrogen by 2030.



www.ffi.com.au Stephen Appleton, Country Manager Canada sappleton@fmgl.com.au

FortisBC Energy Inc.

FortisBC Energy Inc. (FEI) is committed to driving innovation and was the first utility in North America to offer Renewable Natural Gas. FEI is investigating the potential to deliver renewably sourced and low-carbon intensity hydrogen and also assessing opportunities that could support this endeavor including developing innovative production technologies and working with customers to develop hydrogen market demand and uptake strategy.



www.fortisbc.com John Quinn, Senior Manager, Renewable Gas Supply john.quinn@fortisbc.com +1 (604) 862-1411

Golu Hydrogen Technologies Inc.

Golu Hydrogen Technologies Inc., a spinoff from and backed by SBI group of companies, is a provider of green H2 generation modular units that use its proprietary disruptive green hydrogen production technology, Gölu-H2 that thermo-catalytically extracts hydrogen from water- ethanol mixture. Gölu-H2 allows decentralized production of green H2 and clean electricity, independent of grids and taps into existing



petroleum distribution and storage infrastructures globally, avoiding expensive upgrades.



www.sbibioenergy.com/golu-h2 Inder Singh, Founding President & CEO ips@sbibioenergy.com +1 (780) 278-9832

Greenfield Global Inc.



Greenfield is a leading producer of ethanol and RNG. In Varennes, QC a 60 MW electrolyser project including H2 and e-methanol is in development, starting in 2025.



www.greenfield.com

Jean Roberge, Executive Vice-President and Managing Director jean.roberge@greenfield.com

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H-GEN Initiatives Ltd.

H-GEN along with its Indigenous Partner Apeiron Resources are building The Calgary Hydrogen Production Hub that will provide a low cost, low carbon intensity source of Hydrogen fuel to Western Canada along with the first hydrogen refueling station in Calgary. The Hub will also include an Indigenous Training Center which will provide hands on training with Hydrogen production, storage, distribution and transportation, and dispensing. Its a formal program & the first of its kind in North America.



www.hgenltd.com Steven Tofan, Chief Executive Officer stofan@hgenltd.com

H2 Power LLC ■◆■

H2 Power produces green hydrogen by mixing a proprietary aluminum powder with water. We develop efficient equipment and processes to safely produce that hydrogen (H2) at the point of use for transportation and power generation. We use recycled aluminum and do not need electricity. With pure H2, it produces alumina, reusable for other applications. Our basic energy balance generates an excess of 26 Mwh per ton of H2 at a fraction of the cost of electrolysis, which has a deficit of 22 Mwh.



www.h2psolutions.com Fabrice H Bonvoisin, CEO / Co-founder fbonvoisin@h2psolutions.com +1 (312) 878-3755

H2One Energy Inc. ■*■

Founded in 2019, H2One Energy Inc. is a green hydrogen and ammonia project developer that is working with its development partners on a variety of industrial-sized



hydrogen and ammonia projects in Canada and in other international locations. The output could be used locally or be destined for Europe. We work closely with the industry's leading engineering companies and with renewable power producers. H2One Energy Inc. is open to partnerships, co-development opportunities and investors.



www.H2One-energy.com Eric Melis, Co-Founder eric@H2One.ca

HTEC *

HTEC is Canada's leading clean hydrogen production, distribution, dispensing and fleet transition company. HTEC opened Canada's first hydrogen refueling station network. The company currently owns and operates 4 stations in British Columbia, and a containerized station in Quebec. Currently, HTEC has a couple dozen stations in various stages of operation, planning and development throughout North America. HTEC is also building its own green hydrogen production capacity.



www.htec.ca Colin Armstrong, CEO carmstrong@htec.ca +1 (604) 904-0412

Hy2gen

Hy2gen is a global company developing, financing, building, and operating industrial green hydrogen and hydrogen-based eFuel facilities worldwide. Based in Germany with subsidiaries in Quebec, Norway and France and projects in 15 countries.



www.hy2gen.com H Y 2 G E N Cyril Dufau-Sansot, CEO c.dufau-sansot@hy2gen.com

Hydrogenii Canada Inc.

Chemically produced pure Green Hydrogen from waste hydrogen sulfide (sour gas) and waste plastics.



www.hydrogenii.com Martin Vroegh, CEO martin.vroegh@hydrogenii.com +1 (416) 545-7851

Hydrogenious LOHC Technologies GmbH

As midstream player, Hydrogenious LOHC is a major enabler and accelerator for the energy transition. We make sustainable hydrogen available in a safe, efficient and economic way. Our unique LOHC technology solutions for hydrogen storage and



transportation allow to overcome complex supply routes by reusing existing fuel infrastructure.



www.hydrogenious.net

hydr () qen 1005 Helge Urban, Senior Business Development Manager LOHC TECHNOLOGIES helge.urban@hydrogenious.net

INNIO Jenbacher



INNIO is a leading energy solution and service provider that empowers industries and communities to make sustainable energy work today. Our innovative solutions for the power generation and compression segments help industries and communities generate and manage energy sustainably while navigating the fast-changing landscape of traditional and green energy sources. Our natural gas technologies are offered with a "Ready for H2" option that can be retrofitted to 100% H2 operation in the future.



www.innio.com/en Joachim Maier, Managing Director joachim.maier@innio.com

Linde = *

Linde is one of the world's leading industrial gases and engineering companies, the company covers the full spectrum of the hydrogen value chain. Linde has the largest liquid hydrogen capacity and distribution system in the world. We also operate the world's first high-purity hydrogen storage cavern, coupled with a pipeline network of approximately 1,000 kilometers. With close to 200 hydrogen refueling stations, over 150 Steam Methane Reformers, and 80 hydrogen electrolysis plants worldwide.



www.linde.com

Mike Ashton, Government Affairs Manager michael.ashton@linde.com

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Meager Creek Development Corporation

Terrador acquired Meager Creek Development Corporation (MCDC), the holder of BC's only geothermal lease. The project is in the Coast Mountains of British Columbia - part of the traditional territory of the Lílwat Nation. Phase 1 development will be a 32 MW geothermal power plant to produce green hydrogen.

www.meagercreek.ca

Sarah Haydon, Administrative Director shaydon@meagercreek.ca

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Nobian GmbH



Green hydrogen to help decarbonize industry this is the objective of Nobian.Our hydrogen is a by-product of chlorine and caustic production, based on saltwater



electrolysis. This pure hydrogen is very well suited to be used in fuel cells and industrial processes. Using renewable energy, the hydrogen produced is green and has a very low carbon footprint. Our sites are certified under the CertifHy scheme www.certifhy.eu/ and we deliver Guarantees of Origin.



◆ NOBIAN www.nobian.com/en/products/hydrogen Katharina Menzel katharina.menzel@nobian.com

Northland Power Inc.



Green hydrogen (H2) and green fuels will be critical elements of future net-zero global energy system. The market is rapidly expanding, and Northland is gearing up its effort to become an industry leader.



www.northlandpower.com David Timm, Global Head of Public Affairs david.timm@northlandpower.com

Pacifico Energy Partners GmbH



Pacifico Energy Partners GmbH ("Pacifico") is a renewable energy developer and asset manager with a focus on onshore wind and solar power projects in fast-growing European markets. In Germany, we have recently started our development activities in the green hydrogen sphere with several decentralized electrolysis projects in the pipeline, with applications in the mobility and industry sector.



www.pacifico-energy.com

Tom Schelo, Manager Green Hydrogen Projects tom.schelo@pacifico-energy.com

Pattern Energy

Pattern Energy ('Pattern') is one of North America's leading renewable power producers and owns the largest wind energy portfolio in Canada at over 1.6GW of installed capacity. Pattern is an affiliate of the Canada Pension Plan Investment Board (CPPIB) and employs a full development, finance, construction and operations team across North America, Japan, and Europe. Pattern is currently in early-stage development of green hydrogen export projects in Newfoundland, Canada.





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Quantum Technology Corp.

Quantum Technology Corp. is producing hydrogen equipment: purification, compression, liquefaction, as well as project developer. We conduct R&D, manufacturing and commercial activities.





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RWE AG



RWE is active along the full value chain of hydrogen. RWE has a large portfolio of renewables globally, which is key in the production of hydrogen. In addition, RWE has both experience and knowledge to produce H2 as well as the capability to store H2 in RWE-owned gas storages. With RWEST as the interface to global energy markets and the opportunity to use hydrogen within its own operations, RWE aims to be a key player in the future global trade of green hydrogen.



Selantro | | *|

Selantro research and develop sustainable solutions to energy storage challenges. The outcome of the research has led to the development of innovative technologies that offer affordable solutions to conventional energy storage. Our electrolyser utilizes a novel catalyst which improves the membrane electrode assembly (MEA) performance. We are working on the membrane to further reduce the environmental impact of our technology at the end of its life.



www.selantro.com

Eric Ducharme, Vice President Strategic Growth eric.ducharme@selantro.com

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SEN'TI Green Ammonia LP

SEN'TI Green ammonia plant will produce green ammonia using electrolysis and renewable power from the Quebec electrical grid. The project consists of the synthesis green ammonia production powered continuously by renewable energy. An electrolyser to generate hydrogen is put in place upstream of the NH3 synthesis loop. Hydrogen is combined at a fixed molar flow rate with nitrogen produced with an air separation unit.



www.senti.ca Troy Jerome, CEO troy.jerome@senti.ca +1 (418) 788-2882

Shell Deutschland GmbH & Shell Canada Limited ("Shell")

Hydrogen has a critical role to play in delivering energy while lowering carbon dioxide emissions, thereby helping us to fulfil our ambition to become a net-zero emissions energy business by 2050 or sooner. Large-scale production of hydrogen from renewables is Shell's ultimate goal. Shell is part of several major projects that aim to



showcase the viability of hydrogen for the industrial and transport sectors, as well as Shell is exploring the potential for hydrogen import and export.



www.shell.com/energy-and-innovation Contact at: shellpresse@shell.com

Siemens Gamesa Renewable Energy



Siemens Gamesa and Siemens Energy are developing a solution that fully integrates an electrolyser into an offshore wind turbine as a single synchronized system to directly produce green hydrogen. We are adapting the SG14-222 DD offshore wind turbine, to integrate an electrolysis system into its operation. Together we are targeting a total investment of app. EUR 120 Mio over the next five years in the development of this solution, with a full-scale offshore demonstration expected by 2025/2026.



www.siemensgamesa.com/products-and-services Thomas Schwabe, Coordinator H2Mare-OffgridWind thomas.schwabe@siemensgamesa.com

Green Hydrogen Canada / Source3 Energy Inc.

Multi GW Hydrogen Hub in Atlantic Canada.



www.gh2canada.com www.source3energy.com Ayaz Khokhar, Director/ CEO ayaz.khokhar@source3energy.com

Spark e-Fuels GmbH

Spark e-Fuels follows the goal to enable sustainable aviation by producing affordable and sustainable e-fuels at scale that are free of negative environmental impacts (CO2 and non-CO2). To achieve this, Spark works on the development and operation of a decentralized global production network of sustainable aviation fuels (SAF). Spark's technology approach is based on the development of highly efficient and scalable efuels plants for SAF production.



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StormFisher Hydrogen

We are a renewable energy developer/operator that is based in Canada. We work in North America to produce low carbon renewable gases (H2, RNG) as well as derivatives of H2 including e-methanol. We source CO2 from various sources to support the production of H2 derivatives in the local/regional market.



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thyssenkrupp Uhde

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction, and service of chemical plants. We offer leading technologies for basic chemicals, fertilizers, and polymers as well as complete value-chains for green hydrogen and sustainable chemicals. We offer solutions for green ammonia, green methanol, SNG, biomass gasification for clean jet fuel / e-fuels, emission reduction (NOx removal) and carbon capture.

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Tree Energy Solutions ---

Tree Energy Solutions (TES) is a green and clean hydrogen company supplying long term non-intermittent carbon neutral energy on demand at industrial scale. current and future hydrogen users, particularly across mobility, industrial and power sectors. TES is developing energy supply and import hubs in Germany, Middle East, Canada, and the United States to integrate and optimize global supply chains.



www.tes-h2.com Sebastian Scholz, Commercial Director sebastian.scholz@tes-h2.com

Uniper ---

Uniper is a hydrogen pioneer, is active along the entire hydrogen value chain, and is developing projects and a H2 product portfolio worldwide to make hydrogen a mainstay of the energy supply. Capabilities in Engineering, Origination, Shipping, Trading, Asset Management, Sales and Partnering are the basis for Uniper to become a key player in the Hydrogen space. Uniper already today is the partner of choice for European and German industries on their respective decarbonization pathways.



www.uniper.energy

Dr. Christoph Schaefers, Vice President, International Coordination christoph.schaefers@uniper.energy

World Energy GH2 Inc. ■◆■

World Energy GH2 Inc. is developing Project Nujio'qonik on the west coast of Newfoundland & Labrador in Canada. Project Nujio'qonik will be Canada's first commercial green hydrogen/ammonia producer created from 3+ Gigawatts (GW) of renewable electricity through projects in one of the world's best wind resource regions.

www.WorldEnergyGH2.com



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End Piece

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