BRITISH COLUMBIA
Canada

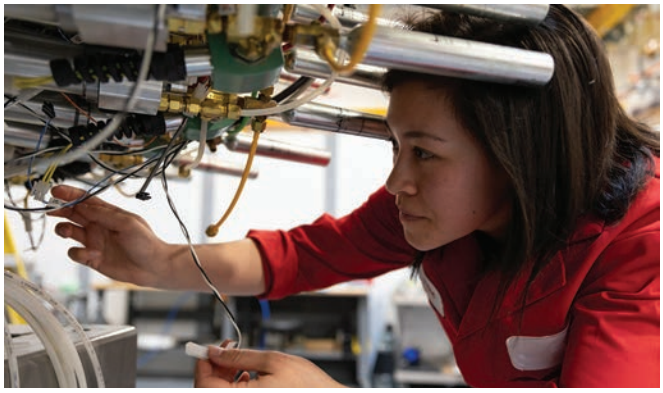
Clean Energy

Abundant, reliable and responsibly sourced

British Columbia, *Naturally.*

BritishColumbia.ca

A world-leading climate policy, abundant resources, cutting-edge technology, highly skilled workforce, regulatory certainty and easy access to the Asia Pacific market position British Columbia (B.C.), Canada as a global leader in the supply of responsibly sourced low emissions clean energy.



The Government of British Columbia is taking action to speed up permitting for renewable-energy projects by introducing legislation that would address climate change, secure energy independence and increase clean-energy production.

Additionally, in partnership with BC Hydro, the Province is launching the 2025 Call for Power – a key action from the Province's new Clean Power Action Plan to acquire a target of up to 5,000 gigawatt-hours (GWh) of new clean electricity supply from Indigenous-led and partnered clean electricity projects. Through requests for expressions of interests, the Province will open up opportunities for baseload electricity projects and partner with innovators to deliver market-ready demand-side management technologies that help people and businesses save energy and money.

Abundant Resources

British Columbia leads the way in abundant natural resources that drive the development, testing and use of clean energy technology including but not limited to low-carbon hydrogen, biofuels, renewable natural gas, biomass, renewable electricity, geothermal and carbon capture, utilization and storage.

B.C. is rapidly expanding clean electricity to support industrial decarbonization and meet growing demand. With close to 100 percent zero-emissions power, the province is boosting BC Hydro's capacity through Site C hydroelectric dam and fast-tracked wind and solar projects, each increasing supply by 8 percent. Future calls for power will further grow B.C.'s clean energy network.

In 2024 BC Hydro released a 10-year Capital Plan to build B.C.'s energy future. BC Hydro is investing more than $700 million over the next three years in energy-efficiency tools, technology and programs, which is expected to result in 2,000 gigawatt-hours per year of electricity savings, or enough to power 200,000 homes.

Moreover, to stabilize the biofuel market and support B.C. companies, the Province is making key amendments to regulations under the Low Carbon Fuels Act that prioritize the inclusion of Canadian biofuels in B.C.'s transportation fuels.

Opportunities are endless in B.C. for clean energy projects, driven by a supportive business environment and a strong government commitment to delivering low carbon energy to the world in the safest, most sustainable way possible, while also advancing Indigenous reconciliation.

Community and First Nations Engagement

The Government of British Columbia is committed to true, lasting reconciliation with Indigenous peoples in B.C. through adopting and implementing the United Nations Declaration on the Rights of Indigenous Peoples and the Calls to Action of the Truth and Reconciliation Commission. As part of those commitments, B.C. works in partnership with First Nations and the clean energy industry on achieving agreements that ensure real benefits reach people in the province while also protecting our environment. Over the coming years, the Province will work in partnership with First Nations communities to support economic and social opportunities for families. Through collaboration with First Nations, the Government of British Columbia will ensure communities remain healthy and have the support they need for economic growth.

Helpful Resources:

The Clean Energy and Major Projects Office, which helps support clean energy projects in B.C., prioritizes the advancement of First Nations interests and First Nations-led clean energy projects.

Indigenous Clean Energy Network provides resources, webinars and other information to advance Indigenous inclusion in Canada's energy futures economy through Indigenous leadership, and broad-based collaboration with energy companies, utilities, governments, development firms, cleantech innovators, academic sector and capital markets.

BC Community Climate Funding Guide for Indigenous communities and local governments is an all-in-one guide of funding opportunities for climate action projects.

Quick facts:

- Twelve First Nations throughout B.C. are receiving provincial funding to support clean-energy projects that will help their members lower energy costs and gain access to efficient, sustainable sources of energy.
- Since the First Nations Clean Energy Business Fund launched in 2011, more than 150 First Nations communities have benefited from more than $21 million in funding for clean-energy and energy-efficiency projects.
- Currently, 46 First Nations benefit from 71 clean-energy revenue sharing agreements with B.C. that are based on new incremental revenues to government derived from water and land rents.

Sustainable Environmental Leadership

B.C. is a global leader in providing regulatory certainty in clean energy development. The Province is taking action to maintain a safe energy sector while also building the cleanest facilities in the world. The CleanBC Roadmap to 2030 outlines the Province's plan to reduce emissions by 40 percent by 2030, and includes a range of accelerated and expanded actions across eight pathways, including low-carbon energy, transportation, buildings, communities, industry, forest bioeconomy, agriculture, aquaculture and fisheries and negative emissions technologies.

Additionally, in 2021 B.C. became the first province in Canada to release a Hydrogen Strategy that is helping the province transition away from fossil fuels and move towards a cleaner, low-carbon energy system. Other examples of government actions include accelerating technology development for a low-carbon future through the Centre for Innovation and Clean Energy and providing funding for development of innovative technologies in the clean energy sector.

Easy Market Access

British Columbia has a very long track record as a safe and reliable energy partner and exporter to the U.S. and Asia. Its geographic position means much shorter shipping distances to Asia. Establishing a clean energy industry on Canada's west coast will allow B.C. and Canada to export clean energy to new customers in rapidly developing markets in China, India and other parts of Asia. B.C. holds the most regionally advantageous position among other provinces in Canada for accessing global markets, such as Asia, the Americas, Europe and Africa.

Highly Skilled Workforce

British Columbia has a large, diverse and educated workforce and a strong talent pipeline thanks to its education and training programs that prepare highly specialized workers in the clean energy sector. The Government of British Columbia was an early supporter of fuel cell innovation and today the province is home to the largest hydrogen and fuel cell sector in Canada. Innovation in this sector is supported by the cutting-edge research conducted at B.C.'s top universities and technical institutes, which are also training the next generation of talent working in this field.

Industry Profile

Biofuels

- Biofuels play an important role in reducing carbon emissions in some of the most difficult sectors, including transportation and industrial process heating.
- In B.C., the carbon intensity of biofuels decreased by 32 percent between 2013 and 2023, making these organically derived fuels even better for our climate.
- Tidewater Renewables opened Canada's first standalone renewable diesel plant refinery in Prince George, B.C. in 2023. In 2024, the facility achieved an average daily throughput of 2,643 barrels of low carbon fuel a day.

Biomass

- Bioenergy products including renewable natural gas, wood pellets for biomass power generation and biochar require large amounts of feedstock and a large capital investment, between $300 million and $1 billion to be economically feasible.
- The Ministry of Forests, with FPInnovations, is developing an interactive information mapping system that will provide users with an accurate and timely estimate on the amount and cost of available residual forest biomass across the province.
- Major opportunities include bio-refining technologies -bio-coal – which converts biomass into solids, liquids and gases and can replace fossil coal and chemicals, and CHP technologies which converts energy stored in biomass to heat and power and can therefore be used to heat buildings.

Carbon Capture, Utilization and Storage (CCUS) and Negative Emissions Technologies

- CCUS involves the capture, transportation and permanent storage of carbon dioxide (CO_2). With CCUS, CO_2 can be put into products like cement or stored deep underground. Deploying CCUS as an emissions reduction strategy is crucial for some industrial sectors that may find it difficult to lower their emissions.
- CCUS technologies can reduce emissions in hard-to-abate sectors such as oil and gas, pulp and paper, and cement, where emissions associated with chemical processes cannot be eliminated in any other way.
- In recent years, B.C. has updated its regulatory framework and supported the development of CCUS by providing funds to projects and research and development initiatives.
- As we advance a provincial approach to CCUS, work is underway to encourage investment in B.C.-based technologies to capture CO_2 and find uses for it.
- Studies of the province's geologic storage potential have also been published, with further geoscience research receiving ongoing support.

Renewable Electricity

- The Government of British Columbia, in partnership with BC Hydro, is launching a second Call for Power to acquire a target of up to 5,000 gigawatt-hours per year of energy from large, clean and renewable projects in partnership with First Nations and independent power producers.
- The 10 wind and solar projects selected through BC Hydro's 2024 Call for Power will power 500,000 homes and increase electricity supply by 8 percent.
- These projects represent up to $6 billion in private capital spending throughout the province and will create approximately 2,000 jobs during construction.
- The 2025 Call for Power will focus on Indigenous-led and partnered clean energy projects, with no project capacity maximum.

Geothermal Energy

- Geothermal energy is the heat contained within the rock and fluid in the earth's crust. It is a source of clean, renewable energy with a small environmental footprint.
- Geothermal energy can be used directly to provide heat or indirectly to produce electricity.
- B.C. is situated on the Pacific Ocean "Ring of Fire" and has several volcanic regions conducive to geothermal energy; geothermal exploration has not yet proceeded to the development of a geothermal power plant.

Renewable Natural Gas

- Renewable Natural Gas (RNG) is emerging as a new opportunity to supply lower carbon energy made from renewable sources. As part of its commitment to reduce greenhouse gas emissions by 40 percent by 2030, Fortis is procuring RNG from inside and outside B.C. Fortis received regulatory approval to produce RNG at the Vancouver and Hartland Landfill and purchase RNG from wood waste created by forestry operations and sawmills.
- Renewable natural gas will reduce B.C.'s greenhouse gas emissions, a step that FortisBC has made possible by offering residential and commercial clients the option to buy into their affordable RNG program.
- FortisBC has been working with local farms, landfills, green energy companies and municipalities to make and deliver RNG.

Hydrogen

- Renewable and low-carbon hydrogen is one of the tools to realize B.C.'s clean and sustainable energy future. The Government of British Columbia is looking at the entire energy system and all energy technologies to meet growing energy needs and achieve net-zero, with renewable and low-carbon hydrogen as one of several clean energy solutions.
- It is one of the only solutions for decarbonizing sectors of the economy where direct electrification is not practical, such as heavy-duty transportation or industrial heating.
- B.C. is the first province in Canada to develop a hydrogen strategy, and it's focused on implementing actions from the BC Hydrogen Strategy and creating the conditions for hydrogen investments in B.C. This includes:
  - Setting up a robust regulatory framework for hydrogen and other renewables.
  - A new Hydrogen Facility Regulation that streamlines permitting and operational requirements for hydrogen manufacturing facilities.
- Canada's first retail hydrogen fuelling station opened in Vancouver in 2018 with support from the Government of British Columbia. In early 2025, there were six public stations across the province, with more stations planned through the support of the CleanBC Go Electric Hydrogen Fuelling Infrastructure Program. This infrastructure investment has created new opportunities for entrants to invest and grow in the space.

B.C. currently has the second-lowest residential electricity rates in North America, and the third lowest commercial and industrial rates.

Sector Partners

Research Centres

Genome BC Funds research and innovations that are improving the lives of British Columbians by advancing health care and addressing environmental and natural resource challenges.

Foresight is a cleantech accelerator that rapidly launches, commercializes and scales climate solutions across Canada.

Simon Fraser University's Clean Hydrogen Hub is a Canadian academic-industry clean energy infrastructure project meant to accelerate hydrogen technology innovation.

University of British Columbia (UBC) Clean Energy Research Centre is a multidisciplinary research hub dedicated to undertaking world-class clean energy research, training, development and demonstrations.

UBC Smart Hydrogen Energy District is equipped with a hydrogen fueling station, this facility is expected to pave the way for breakthroughs in critical energy research.

UBC Okanagan and FortisBC H2LAB was built to advance hydrogen energy research by developing practical low-carbon solutions.

Industry Organizations

Centre of Innovation and Clean Energy, now called NorthX, invests in the commercial development and global scaling of made-in-B.C. clean energy innovations.

Clean Energy BC is an industry association that promotes the growth of B.C.'s clean energy industry by advocating for environmentally responsible and viable power generation, transmission and management resources that serve the public by providing cost effective electricity.

The Canadian Hydrogen Association, through collaboration, advocacy and strategic partnerships, unlocks new opportunities for its members and champions the Canadian hydrogen sector.

Enjoy Government and Industry Support

The Government of British Columbia prioritizes the expansion of the clean energy sector, actively fostering investment and striving to generate market opportunities for the province.

B.C. leads the world in carbon pricing, technology and low-carbon energy. The Province is modelling its successes for others and exporting its solutions to the world while growing economic opportunities at home. B.C. is encouraging its trading partners to adopt similar policies, building global climate-action momentum and combating potential competitive issues for businesses and industry.

With the first broad-based carbon pricing in North America, B.C. has proven that it is possible to reduce emissions while transitioning to a clean economy.

Tax Credits

B.C. Scientific Research and Experimental Development tax credit—a qualifying corporation with a permanent establishment in British Columbia can claim this credit for scientific research and experimental development carried out in British Columbia.

The Clean Buildings tax credit is a refundable income tax credit for qualifying retrofits that improves the energy efficiency of eligible commercial and multi-unit residential buildings with four or more units. Individuals and corporations may be eligible for the tax credit.

The Small Business Venture Capital Program offers tax credits to investors to encourage them to make equity capital investments in B.C.-based small businesses.

Currently, 98 percent of the power generated for B.C.'s integrated grid comes from clean or renewable resources, making B.C. the leader in North America when it comes to clean energy.

Supportive Government

Provincial Programs

BC Indigenous Clean Energy Initiative supports First Nations to fully participate in current and future opportunities in British Columbia's clean energy sector.

BC Manufacturing Jobs Fund helps manufacturing companies modernize, innovate and grow by providing funding for capital projects in B.C.

B.C. Output-Based Pricing System is a performance-based industrial carbon pricing system which incentivises industrial emitters to maintain their competitiveness while reducing greenhouse gas emissions through carbon tax exemption and compliance mechanisms such as carbon offsets and earned credits.

Canada-BC AgriInnovate Program aims to accelerate the commercialization, adoption and/or demonstration of innovative products, technologies, processes or services that increase sector competitiveness and sustainability including renewable energy projects.

CleanBC Industry Fund offers four funding streams that support industry to reduce emissions, trial new innovations, and develop future plans to improve industrial operations.

First Nation Clean Energy Business Fund promotes increased Indigenous community participation in the clean energy sector.

Innovative Clean Energy Fund supports the Province's energy, economic, environmental and greenhouse gas reduction priorities, and to advance B.C.'s clean energy sector such as bioenergy, solar, ocean tidal, geo-exchange, desalination, energy management, smart grid and waste-to-energy technology.

British Columbia's Competitive Advantages

- **Abundant resources**
- **Easy market access**
- **First Nations partnerships**
- **Innovative technologies**
- **Skilled workforce**
- **Supportive governmental programs**
- **Sustainable environmental leadership**

Join these innovative clean energy companies, including:

- Ballard Power Systems
- BC Biocarbon
- Carbon Engineering
- Ekona Power
- E-One Moli
- Hydra Energy
- HTEC
- Moment Energy
- Powertech Labs
- Svante

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Trade and Invest British Columbia

999 Canada Place, Suite 730
Vancouver, British Columbia
Canada, V6C 3E1

Phone: +1 604 775-2100
international@gov.bc.ca

Published in August 2025. Every effort has been made to ensure the accuracy of this publication at the time of writing; however, the programs referred to, and data cited, are subject to change. All figures are in Canadian dollars.

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