

BRITISH COLUMBIA CANADA



CLEAN

TECHNOLOGY

A hub for clean technology innovation

British Columbia, Canada is home to world-class clean technology companies. The Province offers a skilled and educated workforce, a prime location on Canada's West Coast, and a world class quality of life.

Join leading clean and climate tech companies including Awesense, Axine Water Technologies, Ballard Power Systems, Damon Motorcycles, General Fusion, MineSense Technologies, Saltworks Technologies, Svante, and others. These companies are excelling in clean energy, clean transportation technology, energy efficiency, clean water treatment, and waste resource management.

If you want to locate your business in an ideal environment for technology investment and partnership opportunities, British Columbia is the right place to be — it's where innovative technologies are taking off.



BritishColumbia.ca



British Columbia's clean technology advantages

With an abundance of natural resources, low-cost clean power, and a welcoming business environment, British Columbia is making a cleaner future today.

CLEANBC ROADMAP TO 2030

British Columbia (B.C.) is at the forefront of green innovation. Since 2018, the province's continent-leading climate plan, CleanBC, has established B.C. as a key destination for new investment and industry looking to meet the growing global demand for low-carbon products, services, and technologies. The 2021 released CleanBC Roadmap to 2030 is an even stronger, more ambitious plan to further build a cleaner, stronger economy. The plan creates significant opportunities for B.C.'s clean tech sector.

EXCEPTIONAL TALENT

Across British Columbia's broader tech ecosystem, a large, flexible, and educated workforce of more than 123,100 is well represented by diverse and energetic talent. The clean tech sector in B.C. consists of approximately 300 companies employing more than 12,000 of these skilled individuals. British Columbia is also continuing to invest in post-secondary technology programming.

THRIVING CLEAN TECHNOLOGY ECOSYSTEM

British Columbia has one of the highest tech sector growth rates relative to GDP in Canada, and is home to more than a quarter of all Canadian clean technology companies. Four B.C. clean tech businesses are on the 2021 Global Cleantech 100, which lists companies from around the world with the most innovative and promising ideas in clean tech.

CLEAN POWER AT LOW PRICES

British Columbia has abundant water and clean, reliable energy — 98% created directly from renewable resources — providing a steady stream of environmentally sustainable power at rates that are among the lowest in North America. Discounted industrial electrification rates are available to attract clean tech customers seeking to use clean electricity in their green operations.

Find information on B.C. business advantages at [BritishColumbia.ca](https://www.britishcolumbia.ca)

SUPPORTIVE GOVERNMENT

- ▶ The InBC Crown corporation launched in 2021 and oversees a new \$500-million strategic investment fund. Investments will foster a low carbon economy, support lasting and meaningful reconciliation with Indigenous peoples, help achieve greater diversity and inclusion, and contribute to a sustainable economy.
- ▶ In 2021, The B.C. Government also partnered with the Government of Canada and Shell Canada to establish the new B.C. Centre for Innovation and Clean Energy, with initial funding of \$105 million. The Centre will bring together innovators, industry, governments, and academics to accelerate the commercialization and scale-up of B.C.-based clean-energy technologies.
- ▶ The provincial Scientific Research & Experimental Development Tax Credit allows qualified companies to claim tax credits eligible expenditures while the Small Business Venture Capital Tax Credit allows B.C. investors to receive a 30% tax credit on eligible investments including in clean technology.
- ▶ The Province has a robust portfolio of grant programs for businesses. For example, the CleanBC Industry Fund has invested about \$43 million in industrial emission-reduction projects. .
- ▶ A \$40 million partnership between British Columbia's Innovative Clean Energy Fund (ICE) and Sustainable Development Technology Canada (SDTC) supports the development of precommercial clean-energy projects and technologies.
- ▶ British Columbia is a leader in zero-emission vehicles (ZEVs) with the highest per capita adoption of ZEVs in North America (9.4% of light-duty vehicle sales in 2020). British Columbia has one of Canada's largest public charging networks, with over 2,500 public charging stations at the end of 2020. The CleanBC Roadmap to 2030 sets more stringent targets for light-duty ZEV sales of 26% by 2026, 90% by 2030, and 100% by 2050.
- ▶ The CleanBC Building Innovation Fund provides funding for projects that accelerate low-carbon building solutions. This includes advanced building designs, new construction methods, and ultra-efficient building components.
- ▶ Through its Venture Acceleration Network, B.C. crown agency Innovate BC funds the Foresight Cleantech Accelerator Centre to help advance B.C.'s growing clean tech industry.
- ▶ British Columbia's general corporate income tax rate is 12%. When combined with the federal rate, businesses pay an overall rate of 27%.
- ▶ British Columbia has the lowest provincial personal income taxes in Canada for single individuals earning up to \$125,000.

Industry profile

British Columbia's diverse clean tech sector is a leader in researching, developing, and commercializing innovative new systems and products.

AGRICULTURE TECHNOLOGIES

British Columbia has more than 17,500 farms and produces over 300 agricultural products. This provides an ideal testing ground for over 150 companies that offer a range of agriculture technologies to increase sustainability, enhance food production, and reduce waste. Semios, for example, offers the industry's leading precision crop management platform for tree fruit, nuts, and vines. And CubicFarm Systems designs sustainable, controlled vertical farming systems using advanced technologies that have the potential to produce leafy greens, sprouts and herbs, using minimal resources such as land and water.

CARBON CAPTURE AND STORAGE OR UTILIZATION

Carbon Engineering, based in Squamish, B.C., is pioneering Direct Air Capture of carbon dioxide from the atmosphere. The company's "air-to-fuels" technology can combine captured CO₂ with clean hydrogen to produce synthetic low-carbon fuels, among other potential uses. Another example is Svante Inc., which provides an adsorption process to capture carbon directly from flue gas from industrial sources.

CLEAN AND RENEWABLE ENERGY

British Columbia's abundant natural resources drive the development, testing and use of clean, renewable energy technology including wind, hydroelectric, and biomass. For example, General Fusion, backed by the Canadian, U.K., and U.S. governments, is recognized globally as a leader in the development of fusion energy while Powertech Labs is one of the largest testing and investigation facilities in North America for electric utilities, equipment manufacturers, industry, energy producers, and transporters with an international customer base.

CLEAN TRANSPORTATION

British Columbia leads the way in clean transportation technology. The industry's major manufacturers have already invested in and adopted B.C. innovations in fuel cell and natural gas engines. B.C.'s Westport Innovations, for example, engineers the world's most advanced natural gas engines, vehicles and long-haul trucks, reducing both emissions and fuel costs and fundamentally changing the way the world travels. As another example, Hydra Energy is sourcing low-carbon hydrogen from leading chemical partners in B.C., providing clean fuel to Hydra-retrofitted trucking fleets.



ENERGY MANAGEMENT, EFFICIENCY, AND STORAGE

British Columbia is home to innovators in energy efficiency and smart measurement, monitoring and control, and energy storage. Awesense, for example, provides real-time energy analytics to modernize energy grids, while Clir Renewables is a cloud-based AI platform for renewable energy asset managers and owners.

DIGITAL AND OTHER CLEANTECH ENABLING TECHNOLOGIES

British Columbia is home to Canada's Digital Technology Supercluster. Companies of note include D-Wave, the only company in the world to sell commercial computers which use quantum mechanics to dramatically reduce the amount of time and energy required to solve complex computational problems, and MineSense Technologies, a data analytics firm that specializes in creating innovative technologies for the mining industry, such as for sorting of low-grade ore to improve efficiency and reduce use of energy, water and chemicals

GREEN BUILDINGS

British Columbia is a hotbed of green building design innovation and adoption. For example, Structurlam of Penticton is North America's leading manufacturer of mass timber solutions including cross-laminated timber and other engineered wood products and Vancouver-based Nexii Building Solutions provides low-carbon materials and process efficiencies for the quick assembly of durable, energy-efficient buildings with near zero waste.

HYDROGEN AND FUEL CELL

British Columbia is home to an established and growing cluster of hydrogen and fuel cell technology companies providing clean-energy solutions for diverse applications, including transportation, heating for buildings, industrial processes, and powering remote communities. Notably, Ballard Power Systems is a global innovator in PEM (proton exchange membrane) fuel cell technology, having designed and shipped 850 megawatts of fuel cell stacks, systems to power clean energy solutions, and modules to date.

WATER AND WASTEWATER TREATMENT

Leading water and wastewater treatment companies in British Columbia include Axine Water Technologies, which provides onsite treatment of organic pollutants in industrial wastewater; Saltworks, which focuses on industrial desalination, brine treatment and solids production; and Acuva Technologies, which has developed an energy efficient UV-LED process with optical lensing for purification of drinking water.



Centres of Excellence

British Columbia's green centres of excellence bring experts from the public, private and academic sectors together to collaborate on applied research, development and commercialization of new technologies.

Centre of Excellence	Academic Institutions	Focus
Centre for Energy Systems Applications	British Columbia Institute of Technology	Research and training renewable energy technologies (geexchange, photovoltaics, and biomass lighting)
Centre for Interactive Research on Sustainability	University of British Columbia	Research on sustainable building technologies and urban development practices
Clean Energy Research Centre	University of British Columbia	Research and innovation on energy systems, bioenergy, decarbonization, data analytics, and policy
Energy House	Northern Lights College	Training on wind turbines, photovoltaics, solar thermal, biomass, and geexchange
Institute for Integrated Energy Systems	University of Victoria	Research on integrated energy systems
Institute for Resources, Environment and Sustainability	University of British Columbia	Research on sustainable resource management and ecology
Pacific Institute for Climate Solutions	University of Victoria, University of British Columbia, Simon Fraser University, and University of Northern British Columbia	Research on low-carbon economy, climate change, sustainable communities, and resilient ecosystems
Jim Pattison Centre of Excellence in Sustainable Construction Management Technology	Okanagan College	Training on green building principles and renewable energy technologies
Bioenergy Research Demonstration Facility	University of British Columbia	Research on bio-energy
Wood Innovation and Design Centre	University of Northern British Columbia	Research on clean tech wood buildings
Sustainable Energy Engineering facility	Simon Fraser University	Research and training for smart cities, clean transportation and sustainable manufacturing

BRITISH COLUMBIA'S COMPETITIVE ADVANTAGES

- ▶ Prime location on Canada's West Coast
- ▶ Large, flexible, and educated workforce
- ▶ High quality of life
- ▶ Competitive corporate and personal income taxes
- ▶ Renewable, reliable, low-cost power
- ▶ Excellent public infrastructure
- ▶ Expert researchers and state-of-the-art research infrastructure



CONTACT:

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 January 2022

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.



BritishColumbia.ca