





# HARNESSING THE WINDS OF CHANGE

NOVA SCOTIA, CANADA HAS a combination of assets that strongly position the province for AMPLE WIND to power HYDROGEN PRODUCTION.

Canada is one of the top 10 hydrogen producers in the world and consistently ranks among the leading destinations for hydrogen-related foreign investment.

In Nova Scotia, you are part of one of North America's most vibrant ecosystems. Here you find start-ups, established companies, accelerators, anchor post-secondary institutions and research facilities. Nova Scotia companies and research institutions are on the forefront of developing new technologies. This includes lowering costs and emissions in material manufacturing and improving performance and the integration of renewable energy with the electric grid.

## **OFFSHORE WIND**

With one of the world's most competitive untapped offshore wind resources. Nova Scotia alone has the capacity to generate 66 gigawatts with a capacity factor of up to 60%. This is the equivalent of 27% of Canada's total current energy consumption.

Nova Scotia's abundant offshore wind resource has two end-use scenarios: either as a source of clean electricity or to support the production of low carbon fuels, such as green hydrogen.

#### **GREEN HYDROGEN**

Nova Scotia is advancing the development of a green hydrogen sector, positioning the province at the forefront of clean economic growth and environmental leadership. Nova Scotia released a Green Hydrogen Action Plan in 2023 to support the development of the entire hydrogen value chain.

There are currently three major hydrogen production projects in development in Nova Scotia:

- Bear Head Energy Green Hydrogen & Ammonia
- EverWind Fuels Green Hydrogen & Ammonia
- Nova Sustainable Fuels Sustainable Aviation Fuel and Methanol

# **VALUE CHAIN AND LOGISTICS**

Hydrogen stakeholders in Nova Scotia see the strategic value in developing a regional hydrogen transportation corridor—linking producers, distributors, and end users. Collaborative efforts are underway to build an economically self-sustaining hydrogen value chain focused on heavy-duty transportation. This initiative aims to reduce risks for individual projects while laying the groundwork for wider industrial adoption and diverse end uses.

### RESEARCH AND INNOVATION

Nova Scotia is home to 10 universities and 14 community college campuses conducting industry-leading research. Dalhousie University, one of Canada's leading research institutions, is home to a new Hydrogen Applications Research Laboratory and a cross-disciplinary Green Hydrogen Research Cluster.

## **RELEVANT PROGRAMS AND INCENTIVES:**

Canada offers leading R&D incentives. Nova Scotia offers additional R&D top-ups, alongside a supportive business climate. Industry-relevant incentives include:

- Research and Development Tax Credits: Up to 50% of qualified Scientific Research & Experimental Development expenditures made in Nova Scotia are eligible as a tax credit.
- The Capital Investment Tax Credit: Up to \$100 million on eligible capital equipment, acquired for use in Nova Scotia, can be claimed as a refundable corporate income tax credit.
- Strategic Innovation Fund: Repayable and non-repayable contributions to projects for firms of all sizes in Canada's industrial and technology sectors.
- **Payroll Rebate:** Return on a company's eligible gross payroll, based on performance.
- Clean Hydrogen Investment Tax Credit: Provides a
  refundable tax credit for investments in eligible equipment
  available for use in Canada for projects that produce
  hydrogen from electrolysis or from natural gas. The credit
  offers up to 40% on hydrogen portion of the facility and
  15% for ammonia portion of the facility.
- Clean Technology Manufacturing Tax Credit: Encourages investment in clean technology manufacturing and processing. It is a refundable tax credit equal to 30% of the capital cost of eligible new property.

