

Renewable Energy

A cleaner, more secure, sustainable energy future

Nova Scotia has an abundance of natural resources and is fast becoming a world leader in renewable energy development that benefits both domestic and international markets.

To make Nova Scotia cleaner and greener, Nova Scotia's energy policy framework sets out—in law—targets of 25 per cent renewable electricity supply by 2015 and

40 per cent by 2020. Plans involve the adoption of a diverse mix of energy sources including wind, tidal, solar, hydro and bioenergy, as well as the implementation of energy efficiency measures and innovative renewable energy technologies. Nova Scotia will achieve its energy goals through strong partnerships and technological innovations. The development of renewable resources provides a wealth of opportunities.



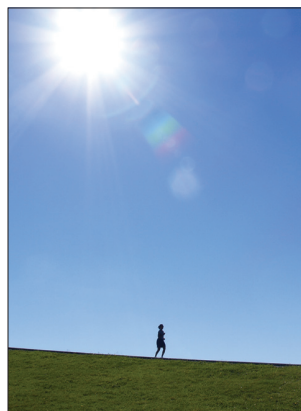
Wind

Wind power development has allowed wind to become the fastest growing renewable energy source in Canada. Nova Scotia has a tremendous wind resource, with nearly 500 megawatts (MW) of anticipated capacity. Over 320 MW of wind energy capacity has been installed in Nova Scotia. For a short period of time in September 2012, wind energy represented 37.5 per cent of Nova Scotia's total energy generation.



Tidal

The highest ocean tides in the world are located in the Bay of Fundy, Nova Scotia, making it an ideal location for tidal energy. Peak surface speeds of up to five metres per second (m/s) are present in parts of the Bay of Fundy. With over 160 billion tonnes of seawater flowing in and out of the bay each tide cycle, it moves more water than the combined flow of the world's freshwater rivers.



Solar

Studies have shown Nova Scotia's mild, yet clear winter days give it an impressive solar resource. The province is examining the use of solar thermal energy for electricity generation. Hundreds of passive solar houses have been built in the province, and the largest solar thermal panel manufacturer in Canada is located in Nova Scotia.



Bioenergy

Bioenergy is becoming increasingly important as a Nova Scotia renewable energy source. With 73 per cent of Nova Scotia's land mass covered in forests, it provides a suitable environment for the responsible development of bioenergy. The progress of bioenergy includes a cogeneration facility and further development of wood pellet manufacturing facilities in Nova Scotia.

Activity

The Maritime Link

The Maritime Link, an overland and subsea transmission cable, will give Nova Scotia access to power from the Lower Churchill Hydroelectric Project. This backstop for the province's renewable energy resources will create a second interconnection point to the North American grid, increasing reliability by establishing an electrical loop. The first power is expected in 2017 and will provide Nova Scotia with 900 gigawatt hours of power per year which represents eight to 10 percent of the province's electricity needs.

Small-Scale Tidal

Nova Scotia is targeting the development and deployment of small-scale tidal devices (500 kilowatts or less). Several potential deployment locations in Nova Scotia are being identified, with research continuing near sites at Grand Passage, Petite Passage and Digby Gut.

FORCE In-Stream Tidal Test Center

Located in the Bay of Fundy, Nova Scotia, the Fundy Ocean Research Center for Energy (FORCE) is Canada's leading research center for in-stream tidal energy. FORCE provides a shared observation facility, submarine cables, grid connection and environmental monitoring at its pre-approved test sites. The center works with developers, regulators, and researchers to study all aspects of tidal energy.

Large Wind Projects

Three Independent Power Producer projects have been awarded through a competitive process overseen by the Renewable Electricity Administrator. A minimum of 355 gigawatt hours of renewable electricity will be produced by three large-scale projects. Once constructed, the 102 MW South Canoe Wind Project, a combination of two separate proposals led by Oxford Frozen Foods and Minas Energy, will be the largest wind farm in Nova Scotia. The 13.8 MW Sable Wind Project, led by the Municipality of the District of Guysborough, was also selected.

Solar City

The Halifax Regional Municipality launched a "Solar City" initiative in 2012 to provide project management and on-bill financing for installations of solar hot water systems in local homes. In the initial round, 1,600 homeowners were accepted. Installations of solar systems, through this initiative, will begin in 2013.

Community Feed-in Tariff Program

The Community Feed-in Tariff Program (COMFIT) is the first community-based feed-in tariff program in North America. The program provides an opportunity for community-based power producers to receive an established price per kilowatt hour for projects producing renewable energy. Through the COMFIT Program, over 130 MW has been allocated to more than 65 projects, representing more than 20 community-based entities.

Nova Scotia's Path

Investing in Nova Scotia's renewable energy is a smart choice, both from an economic and environmental perspective. The *Renewable Electricity Plan* guides the province's renewable energy choices, allowing small and large-scale power producers, communities and utilities to benefit.

Doing Business in Nova Scotia

Discover the competitive advantages of doing business in Nova Scotia—the province offers attractive incentive and funding programs, legislative certainty and proximity to the growing northeast United States energy market. The local supply community is experienced and accustomed to meeting challenging project requirements.



To learn more about Nova Scotia's current project details and potential opportunities, visit

nsrenewables.ca or
novascotia.ca/energy