

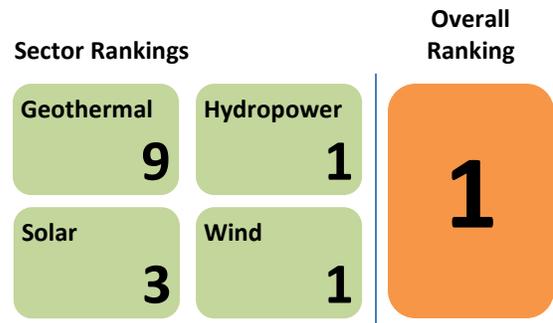


2016 Top Markets Report **Renewable Energy** Country Case Study

Canada

Type: Large Market; Large Market Share

Over the next year, Canada will account for nearly one-fourth of all U.S. exports in the sector. Its proximity to the United States and the close commercial relationship enjoyed by many U.S. suppliers provides exporters a favorable environment to sell their products or services. Thus, while the market will remain much smaller than other, more dynamic clean energy markets across the globe, no market will account for more exports. As such, Canada ranks first on ITA’s list of top renewable energy export markets for the third year in a row.



Canada’s vast renewable energy potential and its national commitment to greenhouse gas reductions suggest significant clean energy investment through at least 2020. All Canadian provinces have similar strategic objectives in developing renewables and there is no large-scale investment in fossil fuel-based power generation. However, differences in provincial regulations and emphasis will ensure that sector growth remains regional, with some provinces supporting large export markets for U.S. suppliers and others attracting little overall investment.

Canada has undergone dramatic changes in its energy sector over the past few years, including the development of new renewable energy capacity alongside unconventional fossil fuel development.¹ Although coal and other fossil fuels should remain a part of Canada’s energy mix for the foreseeable future, some provinces are working to reduce or eliminate coal-based energy entirely. Therefore, clean energy investment should create opportunities for U.S. suppliers in both the near- and medium-term.

The country’s potential has only been buoyed by the new Canadian government under Prime Minister Justin Trudeau.²

The United States’ competitive position within Canada is strong enough to ensure that even sporadic growth will support exports. North American supply chains are so interlinked that any renewable energy project, regardless of the technology used or even the project developer in charge, will often source technology from the United States.

Overview of the Renewable Energy Market

ITA expects Canada’s new capacity through 2017 to be focused on wind, solar and hydropower development. According to some forecasts, Canada may commission a small amount of geothermal power in 2018 which could result in near-term exports (due to the long project timetable).

National level policies exist or are being planned, including the new government's Energy Strategy and its Low Carbon Economy Trust, and Prime Minister Trudeau has stated that he would like to have greater centralization and management of Canada's clean energy goals. However, most of Canada's clean energy policies are created and enforced at the provincial level.³ For example, Nova Scotia's tidal energy program and Québec's provincial clean energy mandate have all led to increased investment in the sector. In November 2015, Alberta and Saskatchewan announced goals for shares of renewables to reach 30 percent and 50 percent by 2030.⁴ Despite the challenge of following the various regional policies, the United States will remain the main supplier by volume and share in Canadian imports of renewable equipment and technology in the near future.

Challenges and Barriers to Renewable Energy Exports

Canada's two most populated provinces, Québec and Ontario, are also the two with the most challenging policy environment for U.S. exporters to compete. For example, Québec has the most stringent local content provisions in Canada, requiring that 60 percent of a project's cost, and 30 percent of wind turbine costs (in the case of wind power), are spent in the province. Ontario has implemented several renewable energy policies expressly designed to attract foreign investment and increase local jobs, rather than rely on imported equipment. On the plus side, new contracts under the Feed-In Tariff no longer include local content requirements.

Moreover, exporters may be better positioned in provinces without substantial manufacturing sectors. Alberta for example – Canada's only completely deregulated electricity market – has strong wind resources, and falling clean energy prices may make the sector competitive economically with other forms of energy. It does not mandate the use of local content and could be a good candidate for off-grid renewable energy technologies – namely, solar PV, distributed wind, and co-generation geothermal – ironically, at existing fossil fuel extraction sites in remote areas.

Canada faces three other issues in the near- and long-term: public opinion on renewables, chiefly wind power; lower global oil prices; and lackluster electrical consumption growth.⁵ Firstly, while Canadians remain overwhelmingly supportive of renewables, wind

power has been associated with higher electricity costs for consumers. Secondly, given the centrality of oil revenues to Canada, the declining price of crude may have an impact on investment in other sectors as Canada attempts to protect its primary export. Finally, Canada's promotion of renewables remains tied to environmental targets, rather than response to increasing electricity demand, which tempers the long-term outlook for renewables investment.

Opportunities for U.S. Companies

Most export sales in Canada are the result of existing commercial relationships between companies in both countries. Yet, with its growing clean energy market (albeit at a slower rate than elsewhere) and its proximity to the United States, Canada can be a great place for new-to-export firms to make their first sales abroad. Companies interested in becoming exporters should work with their local U.S. Export Assistance Center to determine their export readiness and develop an export plan.

Wind

Canada tops ITA's list as the largest wind export market in the near-term, despite only 2 GW of expected capacity growth in the report's timeframe. Its status as the largest export destination for U.S. wind energy exports is a result of the highly competitive nature of U.S. suppliers in the market. Nearly one-fourth of all Canadian imports (measured by value) in the sector are expected to be met by U.S. suppliers. Many of these exports will occur with or without export promotion support or even U.S. government financing.

While no off-shore wind market exists in Canada, the country's geography offers immense possibilities for future development. However, unlike other developed countries, most of Canada's citizens do not live near the coast and thus offshore wind is less attractive. Its attractiveness is further diminished by the presence of low cost hydropower resources that are often far closer to population centers.

Hydropower

Canada is the world's largest generator of hydropower and plans to increase its capacity going forward.⁶ Nova Scotia, Québec, British Columbia, and Labrador are expected to add the most hydropower

capacity, although smaller development can be expected elsewhere.

Given the competitive position of U.S exporters in the market, this expected development should support considerable U.S. exports over both the near- and medium-term. While some hydropower turbines may be sourced locally or imported from Europe, the services associated with Canada's hydropower investment should provide export opportunities, as should the supply of component parts, which enter the market duty free as a result of the North American Free Trade Agreement (NAFTA).

Canada therefore ranks number one on ITA's list of top hydropower export markets. The market should account for over half of all exports in the sector—more than any market in any other renewable energy subsector.

Notably, Canada has also made significant strides in tidal and ocean power, with continued development expected. Nova Scotia, which has some of the world's highest and fastest tides, announced it is on track to produce 20 MW of tidal power by 2020.⁷ Estimates indicate that Nova Scotia alone could provide as much as 30 GW of tidal energy.

Solar

Canada rose higher in this year's *Top Markets* projection for potential solar exports. The combination of accelerated investment in new solar capacity (rooftop commercial projects and utility scale) and Canada's lack of manufacturing capacity in the sector should support export opportunities for U.S. equipment suppliers.

Geothermal

Despite an abundance of geothermal potential, there are no policy incentives for geothermal development in any Canadian province. Canada therefore has not commissioned a single geothermal facility to date. Saskatchewan, however, announced Canada's first planned geothermal project in 2014.⁸ ITA expects future growth in the sector to be small, with isolated projects used for small-scale distributed generation or district heating (particularly in Northern Canada) the primary driver of any development.

¹ Business Monitor International, "Canada Renewables Report," 16 October 2014.

² CBC News, "Justin Trudeau's environment plan," 29 June 2015.

<http://www.cbc.ca/news/politics/justin-trudeau-s-environment-plan-end-fossil-fuel-subsidies-invest-in-clean-tech-1.3131607>

³ Business Monitor International, "Canada Renewables Report Q1 2016," December 2015.

⁴ Business Monitor International, "Canada Renewables Report Q1 2016," December 2015.

⁵ Business Monitor International, "Canada Renewables Report Q1 2016," December 2015.

⁶ Business Monitor International, "Canada Renewables Report," 16 October 2014.

⁷ Business Monitor International, "Canada Renewables Report," 16 October 2014.

⁸ Business Monitor International, "Canada Renewables Report," 16 October 2014.