

Energy Snapshot Dominica

This profile provides a snapshot of the energy landscape of the Commonwealth of Dominica, an island nation located southeast of Guadeloupe and northwest of Martinique in the Lesser Antilles. The 2015 electricity rates in Dominica are \$0.39 per kilowatt-hour (kWh), higher than the Caribbean regional average of \$0.33/kWh. Like many island nations, Dominica is reliant on imported fossil fuels, leaving it vulnerable to global oil price fluctuations that directly impact the cost of electricity. However, Dominica is not as reliant on imported fossil fuels as other islands in the region thanks to three hydroelectric plants on the Roseau River that produce 27.4% of the electricity supply.

Population	73,449
Total Area	751 square kilometers
Gross Domestic Product (GDP)	\$1.02 billion U.S. dollars (USD)
Share of GDP Spent on Fuel and Imports	Electricity - 1.59% Total - 5.02%
GDP Per Capita	\$14,300 USD
Urban Population Share	67.1%

Electricity Sector Data

In the 1960s, hydropower supplied 90% of Dominica's electricity. As population and electricity demand grew, diesel generator use increased and hydropower share diminished. Dominica Electricity Services Limited (DOMLEC) is the sole electric utility with an installed electrical generating capacity of 23.8 megawatts (MW) with a peak demand of 17.2 MW.



Dominica's Renewable Energy Goal:
No Established Targets

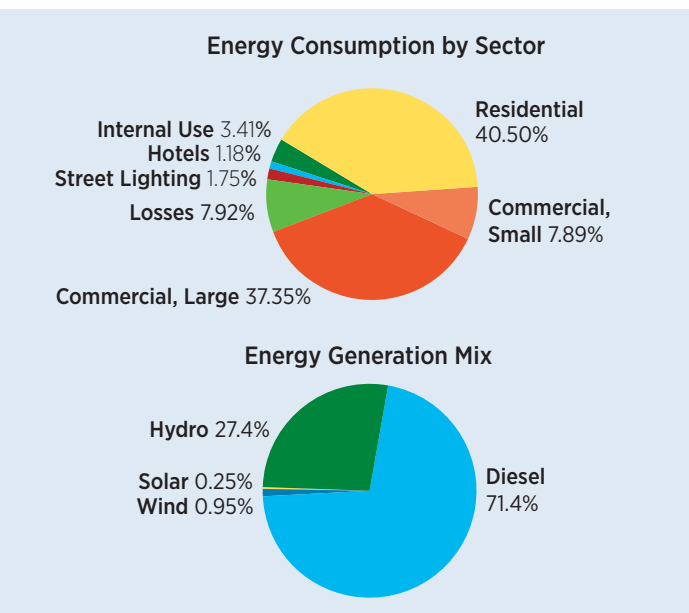
Government and Utility Overview

Government Authority	Ministry: Ministry of Public Works, Energy, & Ports	
	Key Figure: Rayburn Blackmoore	
Designated Institution for Renewable Energy	Energy unit within the Ministry	
Regulator	Independent Regulatory Commission	
Utilities	Name: Dominica Electricity Services Limited	Investor-owned
	Serves 35,000. Light and Power Holdings, a subsidiary of Emera Corp., holds a 53% share; Dominica Social Security holds a 20% share; and employees, private citizens, and local corporations hold the remaining 27% share.	

The country's three operational hydroelectric plants have capacities of 1.3 MW, 1.8 MW, and 3.5 MW with an additional 17 MW potentially available.

Electricity Sector Overview

Total Installed Capacity	23.8 MW	
Peak Demand	16.8 MW	
Total Generation	100.7 gigawatt-hours	
Renewable Share	28.6%	
Transmission & Distribution Losses	8.2%	
Electrification Rate	>99%	
Average Electricity Tariffs (USD/kWh)	Residential	\$0.384
	Commercial	\$0.381-\$0.411
	Industrial	\$0.375



Clean Energy Policy Environment

Dominica drafted a National Energy Plan in 2011 and revised it in 2014 to state its objective of using sustainable and indigenous resources to make electricity generation on the island self-sufficient by 2020. It does not set binding targets, but describes a scenario in which Dominica becomes a net exporter of electricity from its geothermal resources.

Dominica is a participating country in the Caribbean Community's Caribbean Renewable Energy Development Programme—an initiative of the Energy Ministers of the Caribbean Community region established to change the renewable energy market.

Energy Efficiency and Renewable Energy Projects

Dominica has implemented several energy efficiency and renewable energy projects to date, including:

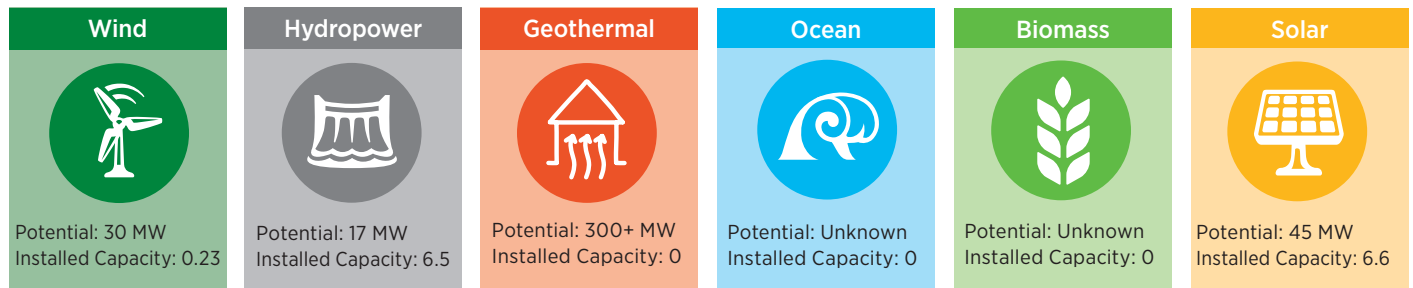
- 2007: A program sponsored by Cuba replaced 280,000 incandescent light bulbs with compact fluorescent bulbs in Dominican households.

Existing Policy and Regulatory Framework

Renewable Energy	
Feed-in Tariff	
Net Metering/Billing	
Interconnection Standards	●
Renewables Portfolio Standard/Quota	
Tax Credits	
Tax Reduction/Exemption	
Public Loans/Grants	
Green Public Procurement	
Energy Efficiency	
Energy Efficiency Standards	■
Tax Credits	■
Tax Reduction/Exemption	
Public Demonstration	■
Restrictions on Incandescent Bulbs	
Appliance Labeling Standards	
Targets	
Renewable Energy	
Energy Efficiency	

● In Place ■ In Development

Renewable Energy Status and Potential



- 2008: Rosalie Bay Resort installed a 225-kilowatt (kW) wind turbine that produces 596 megawatt-hours (MWh) annually. This was the first renewable energy project to be interconnected to the DOMLEC grid. An additional 1-kW turbine is in operation, but is not connected to the grid.
- 2009: DOMLEC installed 26,000 smart meters as part of its Automated Meter Infrastructure (AMI) project.
- 2013 and 2014: A government-led initiative installed LED streetlights.

Dominica has high solar potential with a solar resource of 5.6 kWh per square meter per day and also has approximately 30 MW of wind power potential, some of which is under development. After reviewing nine wind studies, DOMLEC concluded that Crompton Point, located in Saint Andrew, has a potential of 10 MW of wind power and that an additional 20 MW of wind potential is available elsewhere in the country.

Geothermal potential in Dominica is high, with estimates ranging from 300 MW to 1,390 MW. Dominica is expected to develop more than 100 MW of geothermal power and has secured funding for early-stage investment through the World Bank's Geothermal Development Plan. The island may be able to secure additional international and private sector funding for these projects. Additionally, the staff of Dominica's Ministry of Public Works, Energy, and Ports participated in an intensive geothermal training program administered by the Energy and Climate Partnership of the Americas, whose goal is to train technicians to build capacity in geothermal development.

Opportunities for Clean Energy Transformation

Wind, solar, and geothermal resources, paired with expanding hydropower, offer the greatest potential for renewable energy development in Dominica. Few policies currently support renewable energy development, but none inhibit them. Difficulties associated with acquiring adequate land for wind and solar projects, and challenges related to Dominica's geographical, topographical, and transportation issues, do create some obstacles.

Renewable energy installations have the potential to lower the fuel charge portion of electricity rates and increase the reliability of electricity services through appropriate planning and operating procedures.

Sources

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Energy Transition Initiative

This energy snapshot was prepared to support the Energy Transition Initiative, which leverages the experiences of islands, states, and cities that have established a long-term vision for energy transformation and are successfully implementing energy efficiency and renewable energy projects to achieve established clean energy goals.

Through the initiative, the U.S. Department of Energy and its partners provide government entities and other stakeholders with a proven framework, objective guidance, and technical tools and resources for transitioning to a clean energy system/economy that relies on local resources to substantially reduce reliance on fossil fuels.



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**ENERGY
TRANSITION
INITIATIVE**

Islands

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