

## Energy Snapshot Turks and Caicos

This profile provides a snapshot of the energy landscape of the Turks and Caicos—a British overseas territory consisting of two groups of islands located southeast of the Bahamas. The 2015 electricity rates in Turks and Caicos are \$0.29 per kilowatt-hour (kWh), slightly below the Caribbean regional average of \$0.33/kWh. Like many island nations, Turks and Caicos is almost 100% reliant on imported fossil fuel, leaving it vulnerable to global oil price fluctuations that have a direct impact on the cost of electricity.

<b>Population</b>	34,000
<b>Total Area</b>	948 square kilometers
<b>Gross Domestic Product (GDP)</b>	\$632 million U.S. dollars (USD)
<b>Share of GDP Spent on Fuel and Imports</b>	Electricity – unknown Total – 9.5%
<b>GDP Per Capita</b>	\$29,100 USD
<b>Urban Population Share</b>	93.8%

### Electricity Sector Data

The government-owned Turks and Caicos electric grid was privatized in 2006 through a series of acquisitions to create a vertically integrated structure. FortisTCI, a wholly owned subsidiary for Fortis Inc., is an international utility holding company that owns and operates generating stations and distribution lines across the islands. FortisTCI provides electricity directly to Providenciales, North Caicos, Middle Caicos, East Caicos, South Caicos, and adjacent cays. Turks & Caicos Utility Limited (TCU) is wholly owned by FortisTCI and provides electricity to Grand Turk and Salt Cay.



### Turks and Caicos' Clean Energy Goal:

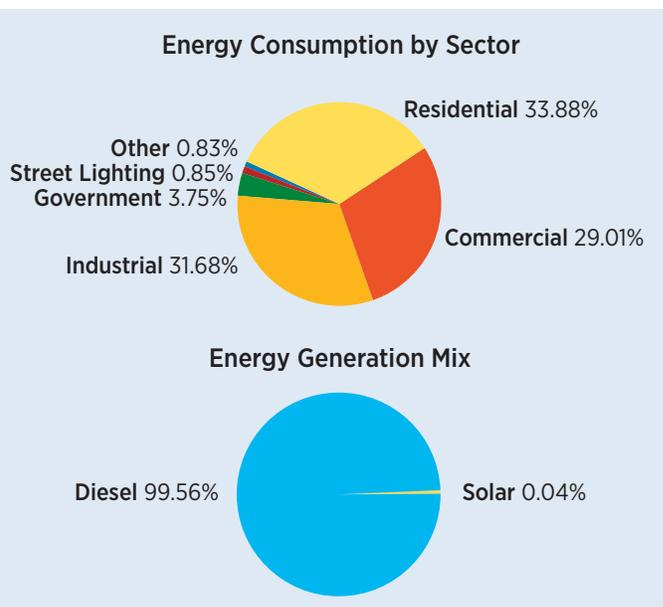
In 2010, the government of Turks and Caicos contracted with a consultant to draft recommendations for exploring the use of renewable energy and energy efficiency technologies to create a more sustainable energy framework. In 2011, the Department of Environmental and Coastal Resources (DECR) commissioned the National Energy Conservation Policy and Implementation Strategy resulting in the establishment of rules and incentives for the promotion of utility-scale and distributed renewable energy needs. Further strategic energy planning was undertaken in 2012, although it is unclear the extent to which these planning activities have resulted in policy changes.

### Government and Utility Overview

<b>Government Authority</b>	<b>Ministry:</b> Ministry of Government Support Services, Energy & Utilities Department	
	<b>Key Figures:</b> The Governor and the Electricity Commissioner	
<b>Designated Institution for Renewable Energy</b>	None	
<b>Regulator</b>	The Electricity Commissioner	
<b>Utility</b>	FortisTCI	Private Corporation

## Electricity Sector Overview

<b>Total Installed Capacity</b>	75 megawatts (MW)	
<b>Peak Demand</b>	34.7 MW	
<b>Total Generation</b>	200 gigawatt-hours	
<b>Renewable Share</b>	0%	
<b>Transmission &amp; Distribution Losses</b>	Unknown since privatization	
<b>Electrification Rate</b>	99%	
<b>Average Electricity Tariffs (USD/kWh)</b>	<b>Residential</b>	\$0.26 – \$0.27
	<b>Commercial</b>	\$0.27 – \$0.32
	<b>Industrial</b>	\$0.17 – \$0.25



Four main entities are responsible for governing the electricity sector in Turks and Caicos. The governor grants and revokes licenses, regulates the level and structure of tariffs that electric companies can charge for various customer groups, and approves changes to these regulations. The Ministry of Works, Housing, and Utilities receives annual regulatory filings from companies, which the Electricity Commissioner reviews while overseeing monthly fuel-cost adjustment mechanisms, inspecting and testing power plants, and overseeing the electricity inspectorate. Lastly, the DECR contributes to efforts to develop policy for energy conservation and renewable energy generation and is responsible for sustainable management of natural resources.

## Clean Energy Policy Environment

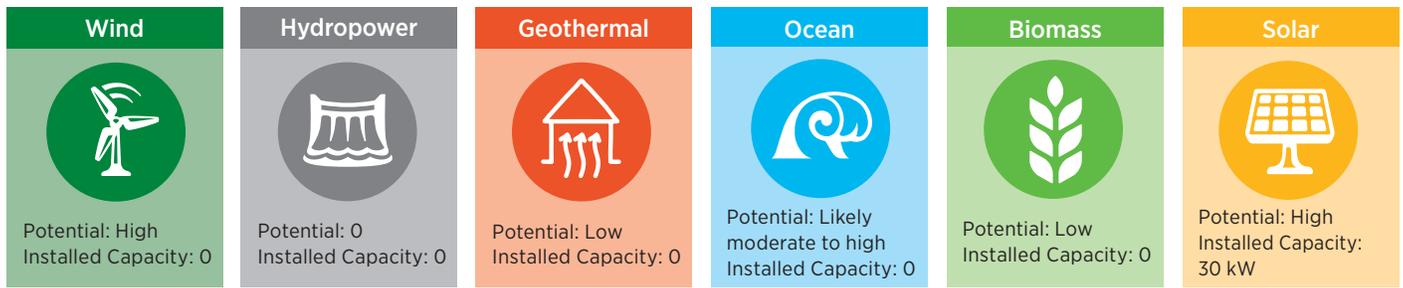
Turks and Caicos has few policies related to energy efficiency and renewable energy. Historically, the territory has not implemented policy mechanisms to aid in the development of clean and energy-efficient technologies. In fact, some policies inhibit their implementation; a ban on new electricity generators, self-generation, and feed-in tariffs is currently in place, minimizing the opportunities for clean energy development regardless of technical and economic potential.

## 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



Current regulations and legislation do not require utilities to implement energy efficiency measures. The current regulatory structure allows for utility profit to be built into the budget to act as a financial buffer and a contingency in case of emergency.

### Energy Efficiency and Renewable Energy Projects

Turks and Caicos has almost no experience with renewable energy and energy efficiency technologies. Almost all renewable energy resources have remained untapped, largely because of the need to upgrade institutional and regulatory frameworks, lack of interconnection protocols, and the need for investments in distribution system upgrades.

However, considerable solar and wind resources are available. The region has substantial solar resources (5.7 kWh/square meter) each day with more than 350 days of strong sunshine, strong average winds (greater than 7 meters per second), powerful waves, and a large thermal gradient on the shores (necessary for ocean thermal energy conversion). Once wave and ocean thermal technologies are proven in the marketplace, ocean energy and ocean thermal energy conversion have potential as well.

### Opportunities for Clean Energy Transformation

Abundant wind and solar resources, as well as the potential for other renewable sources could help Turks and Caicos meet or exceed its peak demand of 34.7 MW. Even partial development of these resources—where economically viable and technically feasible from a grid integration standpoint—could result in high-penetration of renewables onto the electrical grid.

Turks and Caicos has the highest reported greenhouse gas emissions in the region—the reduction in fuel imports seen from energy efficiency and renewable energy implementation will greatly help to reduce those emissions and improve air and water quality. As with other island grids, Turks and Caicos may need to invest in grid upgrades in order to see significant reductions in fuel imports.

## 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.



## Sources

The information provided in this fact sheet was developed using the following sources.

Castalia Strategic Advisors, *Development of an Energy Conservation Policy and Implementation Strategy for the Turks and Caicos Islands*, Washington, D.C., 2011: [http://www.fortistci.com/powerpanel/modules/renewalenergy/html/uploads/pdfs/1363647303tci\\_final\\_report.pdf](http://www.fortistci.com/powerpanel/modules/renewalenergy/html/uploads/pdfs/1363647303tci_final_report.pdf).

Central Intelligence Agency World Factbook, Turks and Caicos Islands: <https://www.cia.gov/library/publications/the-world-factbook/geos/tk.html>.

Energy Information Administration: International Energy Statistics, Turks and Caicos Islands, 2013: <http://www.eia.gov/countries/country-data.cfm?fips=TK>.

FortisTCI, “FortisTCI Receives Final Results from Renewable Energy Interconnection Study.” <http://www.fortistci.com/fortistci-receives-final-results-from-renewable-energy-interconnection-study>.

FortisTCI, Renewable Energy: <http://www.fortistci.com/renewable-energy>.

Lesser, J.A.; Puga, J.N. *Renewable Energy in Turks and Caicos: An Independent Assessment*. Sandia Park, NM: Continental Economics, 2011: [http://www.fortistci.com/powerpanel/modules/renewalenergy/html/uploads/pdfs/1363647255tci\\_report\\_2011\\_03\\_24.pdf](http://www.fortistci.com/powerpanel/modules/renewalenergy/html/uploads/pdfs/1363647255tci_report_2011_03_24.pdf).

Market Wired, “Fortis Inc. Acquires Electric Utilities in the Turks and Caicos Islands.” <http://www.marketwired.com/press-release/Fortis-Inc-Acquires-Electric-Utilities-in-the-Turks-and-Caicos-Islands-TSX-FTS-609647.htm>.

Ten Island Challenge Discussion Guide and Questionnaire: Turks and Caicos Islands (internal questionnaire sent to the National Renewable Energy Laboratory, 2014): <http://wrbenterprises.com/energy/>.

World Bank, Turks and Caicos Islands: <http://data.worldbank.org/country/turks-and-caicos-islands>.

WRB Enterprises, Energy: <http://wrbenterprises.com/energy/>.

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