

What is the energy potential of Saint Lucia?

Saint Lucia is a volcanic windward island, with large technical potential for geothermal, wind, and solar renewable energy generation, as well as use of solid waste generated by residents. Little technical potential for biomass or hydroelectric generation exists on the island.

Is Saint Lucia reliant on fossil fuels for electricity generation?

Like many island nations, Saint Lucia is almost 100% reliant on imported fossil fuels for electricity generation, leaving it vulnerable to global oil price fluctuations that directly impact the cost of electricity. Electricity Sector Data

How much does electricity cost in Saint Lucia?

The 2015 electricity rates in Saint Lucia are \$0.34 per kilowatt-hour (kWh), in line with the Caribbean regional average of \$0.33/kWh. Like many island nations, Saint Lucia is almost 100% reliant on imported fossil fuels for electricity generation, leaving it vulnerable to global oil price fluctuations that directly impact the cost of electricity.

How much geothermal potential does Saint Lucia have?

The volcano that sits in the middle of Saint Lucia provides vast geothermal potential. Conservative estimates indicate more than 30 MW of technical geothermal potential; others estimate 170 MW. Estimates also show that development of this geothermal resource would likely be economically feasible.

Can a biomass plant be built in Saint Lucia?

A biomass plant requires large tracts of agricultural land and is not economically feasible. Rivers and waterfalls on Saint Lucia do not have a base flow rate sufficient to power water turbines. The most promising hydroelectric spot is the Roseau Reservoir, which can supply 150 kilowatts (kW).

Is LUCELEC's metering infrastructure reducing Saint Lucia's electrical losses?

Advanced metering infrastructure installed across 20% of LUCELEC's customer base in 2010 reduced technical and nontechnical electrical losses. Despite these efforts, Saint Lucia's transmission losses remain moderately high at more than 9%.

In 2017, the first utility scale renewable project was constructed on the island: a 3MW solar plant by the airport funded by the utility company LUCELEC. In 2013, Saint Lucia had joined the Carbon War Room's Ten Island Challenge at the Caribbean Conservation Summit, which aims to help islands across the Caribbean to transition to 100% ...

Our rooftop solar capacity has grown at an incredible rate since its first rooftop solar system was installed in

two thousand eleven. UQ initially installed a 1.2 megawatt solar voltaic system on four of its Saint Lucia buildings.

Typical system prices and monthly energy production for 1 kWp, in Saint Lucia, range from US\$3000 to US\$4500 and around 125kWh. Prices for solar PV systems are constantly dropping. Note: PV system sizes are given in kWp, i.e. kilowatt peak.

This dataset contains solar rooftop potential data (suitable rooftop area, installable capacity, estimated yearly electricity generation, and building type ) at individual building structure level for a sample area of interest in Saint Lucia.

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Saint Lucia receives high levels of solar irradiation (GHI) of 5.4 kWh/m<sup>2</sup>/day and specific yield 4.5 kWh/kWp/day indicating very strong technical feasibility for solar in the country.<sup>3</sup> The country is highly dependent on imported fossil fuels for generation of electricity, thus making it susceptible to

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