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WHY SOLAR ENERGY IN PUERTO RICO

Technology and Education Center for Renewable Energy
San Juan, Puerto Rico



1. LOCATION

- **Caribbean**

Close to Dominican Republic and the US and British virgin islands.

- **Weather**

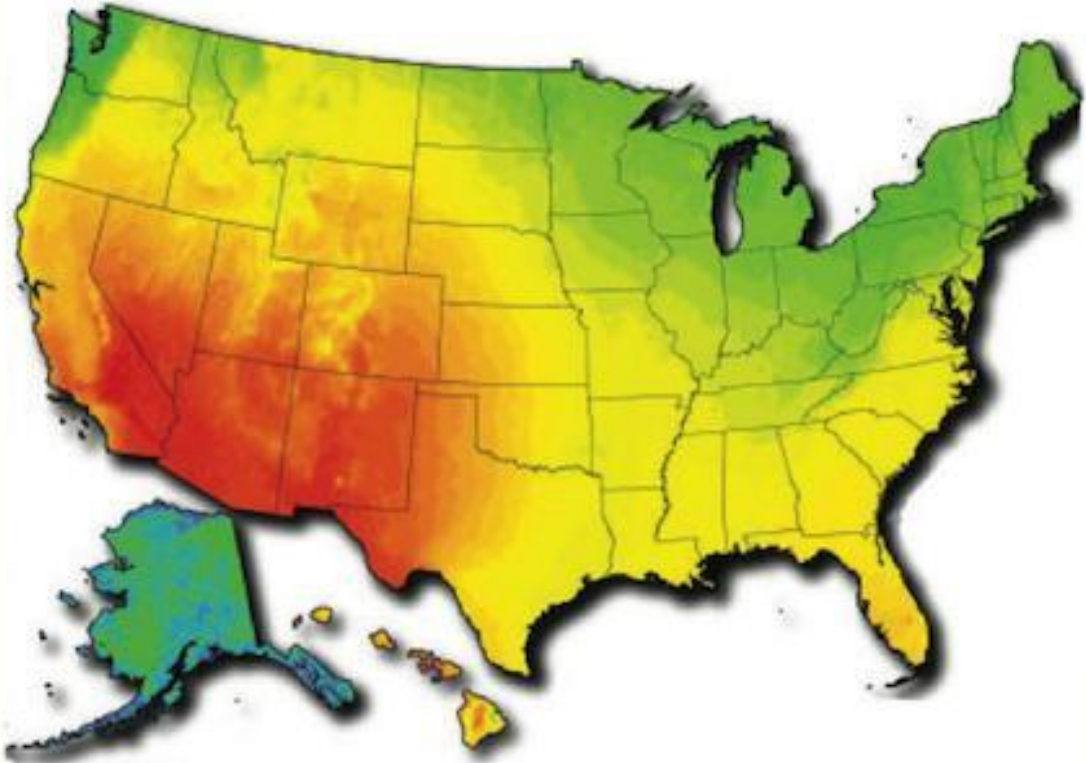
August is the hottest month **75°F (24°C)**
January is the coldest: **63°F (17°C)**

- **Daylight**

The most daily sunshine hours at 11 in August.

2. PEAK SUN HOURS

Location	Puerto Rico
Panel Tilt	18.29
Month	Solar Radiation (kWh / m2 / day)
January	5.06
February	5.56
March	5.45
April	5.57
May	5.2
June	5.41
July	5.61
August	5.47
September	5.42
October	5.19
November	5.03
December	4.88
Source: PV Watts	



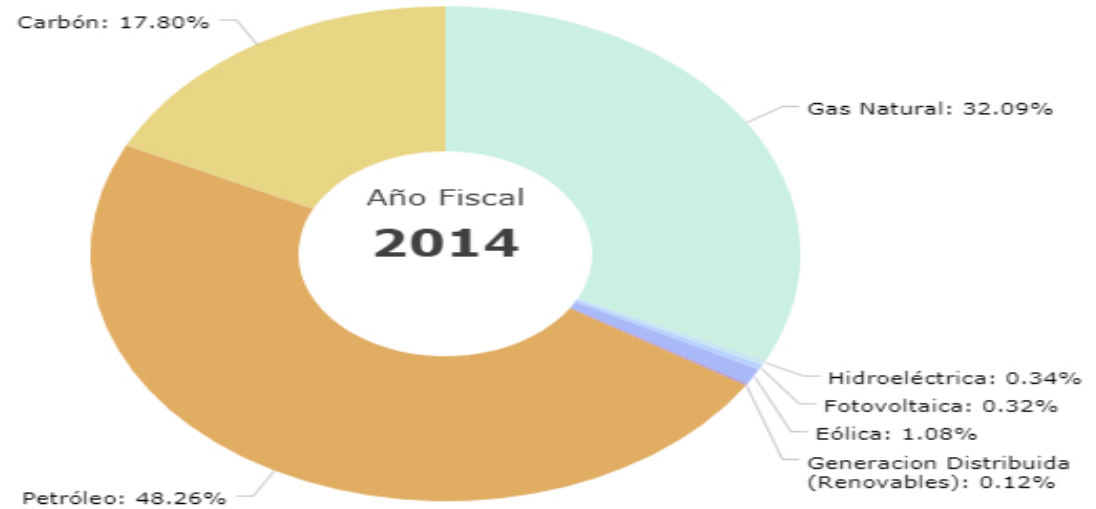
Solar Hours per Day
Yearly Average



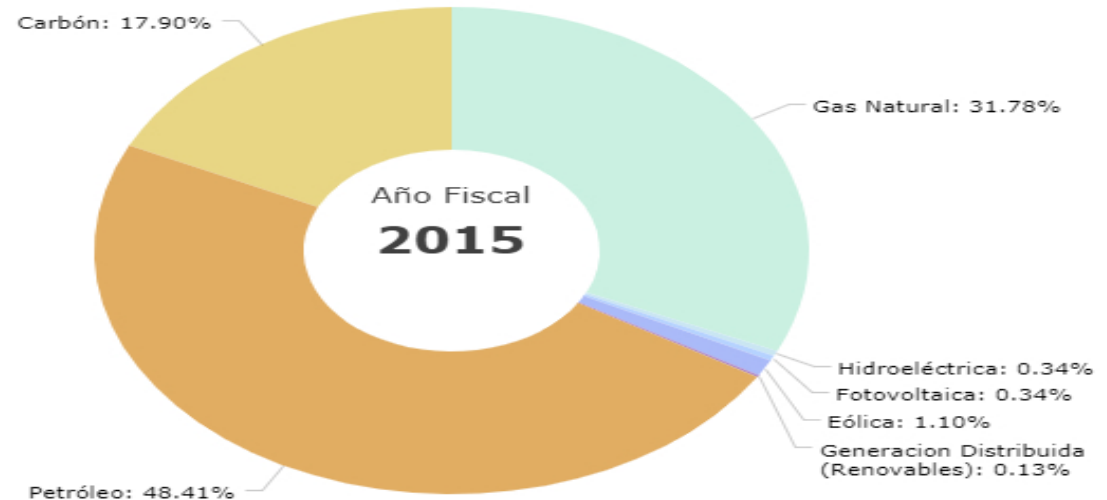
3. ALTERNATIVE SOURCE OF ENERGY

- When the electricity grid goes off, renewable sources work as a back up.
- Diversify Energy sources in Puerto Rico.
- Based on the U.S Energy Information Administration by 2017, 64% of Puerto Rico's Energy comes from Oil and Coal, 34% from Gas Natural and 2% from Renewable Energies.

Distribución Porcentual de la Generación de Energía por Tipo
Año Fiscales (2013-14 y 2014-15)



Distribución Porcentual de la Generación de Energía por Tipo
Año Fiscales (2013-14 y 2014-15)



Source: Negociado de Energía, Puerto Rico

4. HOW MUCH DOES SOLAR INCREASE PROPERTY'S VALUE

According to The National Renewable Energy Laboratory research, each additional \$1 in energy bill savings (from your solar installation) adds \$20 to your home's total value.

A recent research shows an average increase in resale value being \$5,911 for each 1 kilowatt (kW) of solar installed. In a state like California, for example, a small 3.1-kilowatt (kW) system can add an average of \$18,324 to the value of a medium-sized home.

Installing solar panels help your home sell 20% faster as properties without solar installations, (Cost of Solar, 2019)

Installing 5kW of solar panels adds an average of \$29,555 to the retail value of a medium-sized home.

4. HOW MUCH DOES SOLAR INCREASE PROPERTY'S VALUE?

U.S. Solar Market Value Report – 1st Edition: Further Evidence that Solar Adds Value to Real Estate, looked at the sale of real estate with solar power in **Arizona, California and Massachusetts** and **concluded that, indeed, solar does add value to a home's real estate price**; a recent report from Sandia National Laboratories (Solar Estimate, 2017)

An increasing number of studies are showing that solar power is adding value to homes when they're sold. However, the studies are still limited in scope to a handful of states, like California and Massachusetts where the industry has seen the most growth.

5. CONTRIBUTE TO PUERTO RICO ENERGY GOAL

Electric grid relying completely on Renewable energy by 2050.

Part of a multimillion-dollar program to reduce the U.S. territory's carbon footprint and make it more climate resilient, Puerto Rican Gov. Ricardo Rosselló announced on November 2018.

The clean energy goal calls for meeting 40 percent of all electricity with wind and solar power by 2023.

The clean energy goal is one of 10 measures included in the newly released [plan](#) dubbed the "Puerto Rico Pledge for Climate Change."



6. FINANCIAL INCENTIVES

Name	State/ Territory	Category	Policy/Incentive Type	Created	Last Updated	DESCRIPTION
Puerto Rico - Green Energy Fund	PR	Regulatory Policy	Public Benefits Fund	8/2/2011	5/6/2015	<ol style="list-style-type: none"> 1. First Level – Small-scale Green Energy Projects: Total amount of the incentive will not exceed (60%) of the installation cost. 2. Second Level – Medium-scale Green Energy Projects: under no circumstances the total amount of the incentive shall exceed fifty percent (50%) of the installation cost of the production nit
Puerto Rico - Excise Tax Exemption for Farmers	PR	Financial Incentive	Sales Tax Incentive	1/17/200 0	5/6/2015	<ol style="list-style-type: none"> 1. The incentive is 100.00 % In Puerto Rico, "bona fide farmers" are exempted from paying all types of excises for equipment, articles and objects whose operation depend solely on solar, wind, hydro or any other type of power, excluding the power produced by petroleum and its derivatives.

6. FINANCIAL INCENTIVES

Name	State/ Territory	Category	Policy/Incentive Type	Created	Last Updated	DESCRIPTION
Puerto Rico - Tax Deduction for Solar Energy Systems	PR	Financial Incentive	Personal Tax Deduction	10/21/2002	5/5/2015	1. Puerto Rico offers a 30% tax deduction (up to \$1,500) for expenses incurred in the purchase and installation of solar equipment to heat water for residential use.
Puerto Rico - Green Energy Fund Tier II Incentive Program	PR	Financial Incentive	Grant Program	8/3/2011	5/5/2015	1. The maximum incentive is determined by multiplying 50% by the corresponding Reference Cost and system capacity. There is a one-time application fee of \$2,000 for systems up to and including 300 kW and \$4,000 for systems greater than 300 kW.
Puerto Rico - Green Energy Fund Tier I Incentive Program	PR	Financial Incentive	Rebate Program	8/3/2011	5/5/2015	1. Available for photovoltaic (PV) and wind systems up to and including 100 kW in capacity on a first-come, first-served basis. Projects are eligible for a rebate up to 40% of installed costs, as long as the calculated dollar per watt installed cost is less than the Reference Cost.



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Thanks