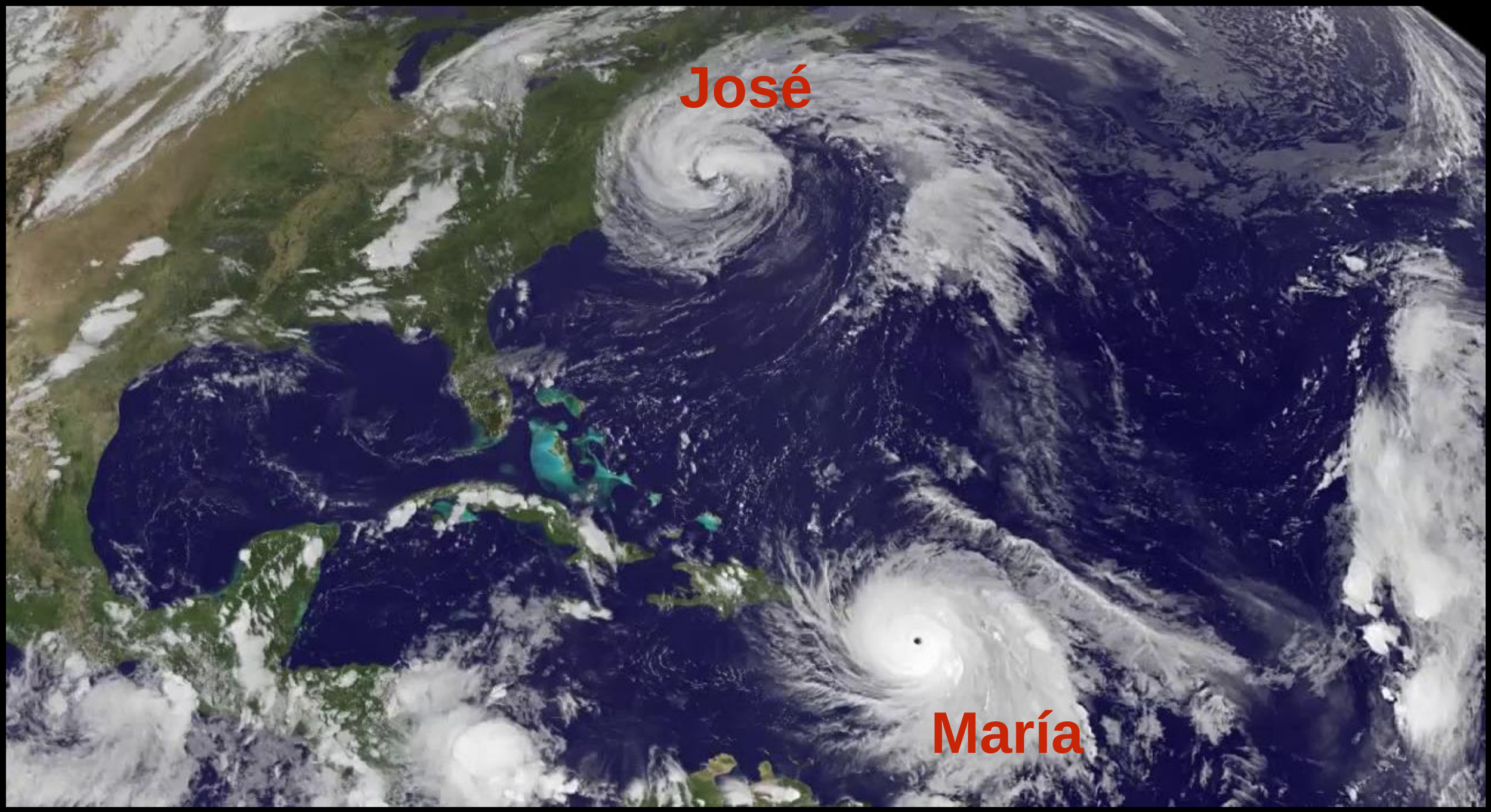
José
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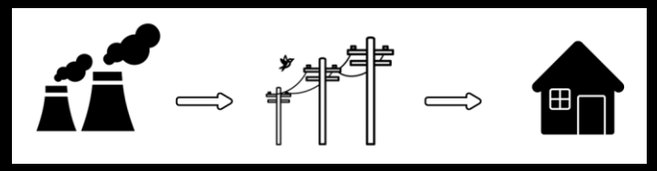
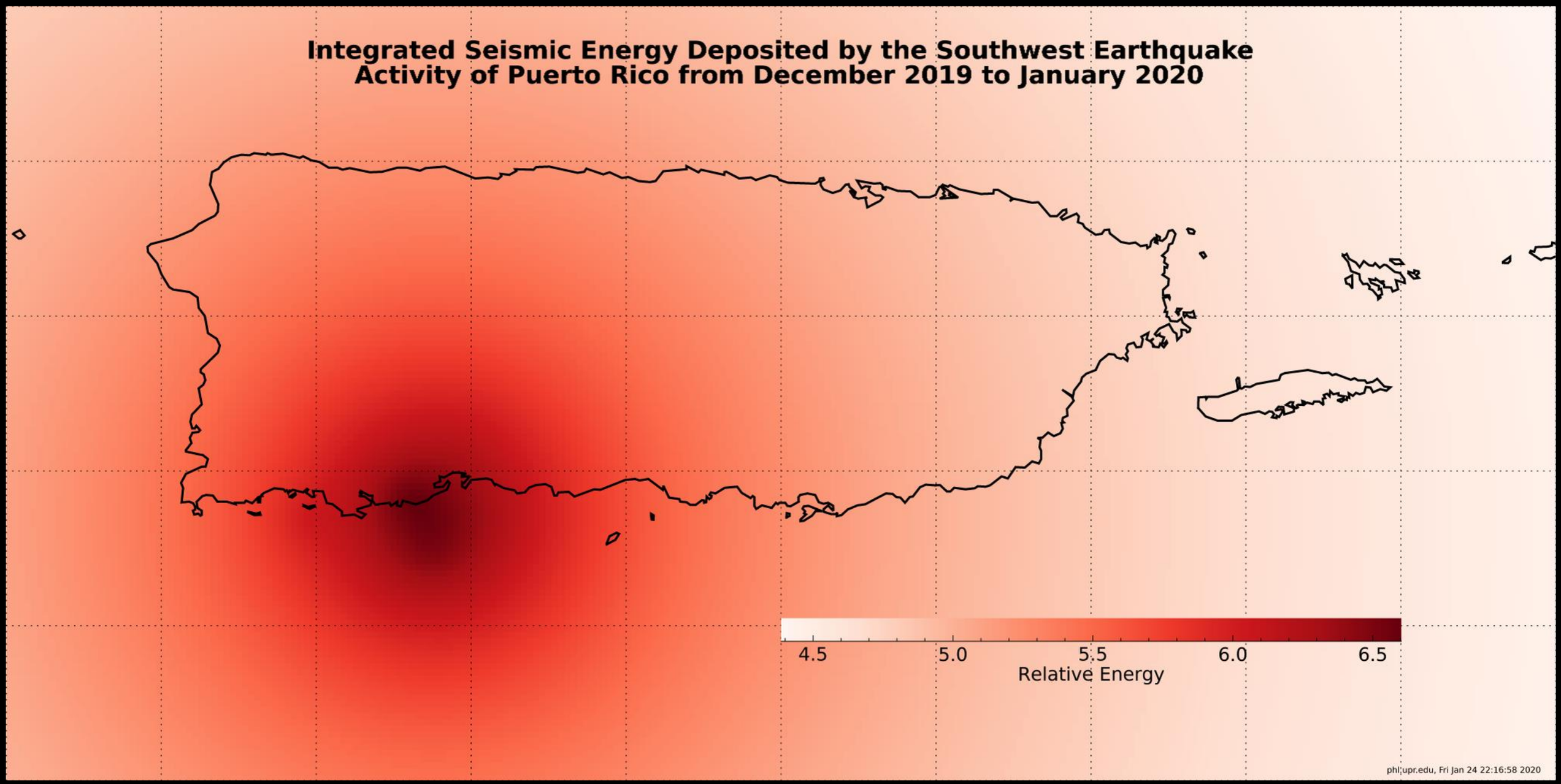
PREPA

[Puerto Rico Electric Power Authority



Integrated Seismic Energy Deposited by the Southwest Earthquake Activity of Puerto Rico from December 2019 to January 2020



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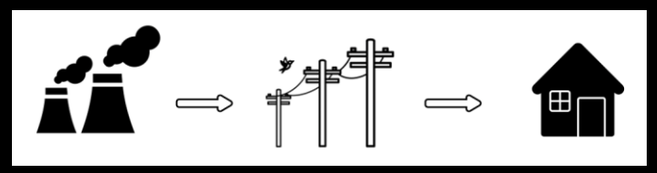


COVID-19

PANDEMIC

Today


REST VISTA AL RIO


HOGAR LA MISERICORDIA, INC.

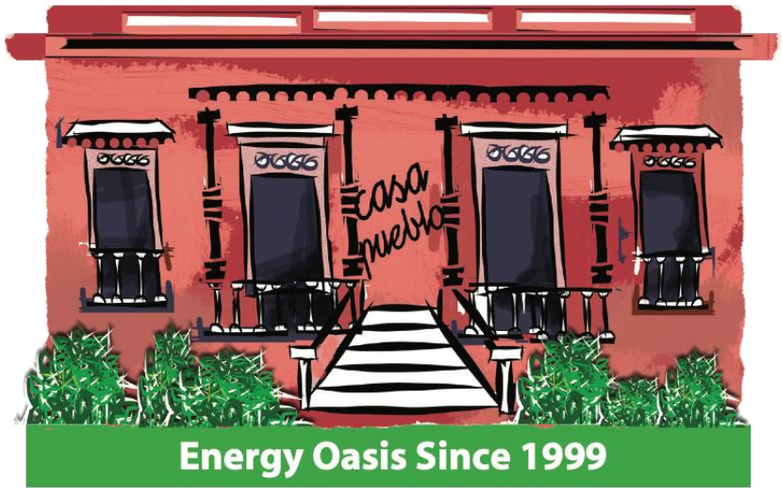

Don Pepe
HIELO
JUEGA AQUÍ
LOTERIA ELECTRONICA

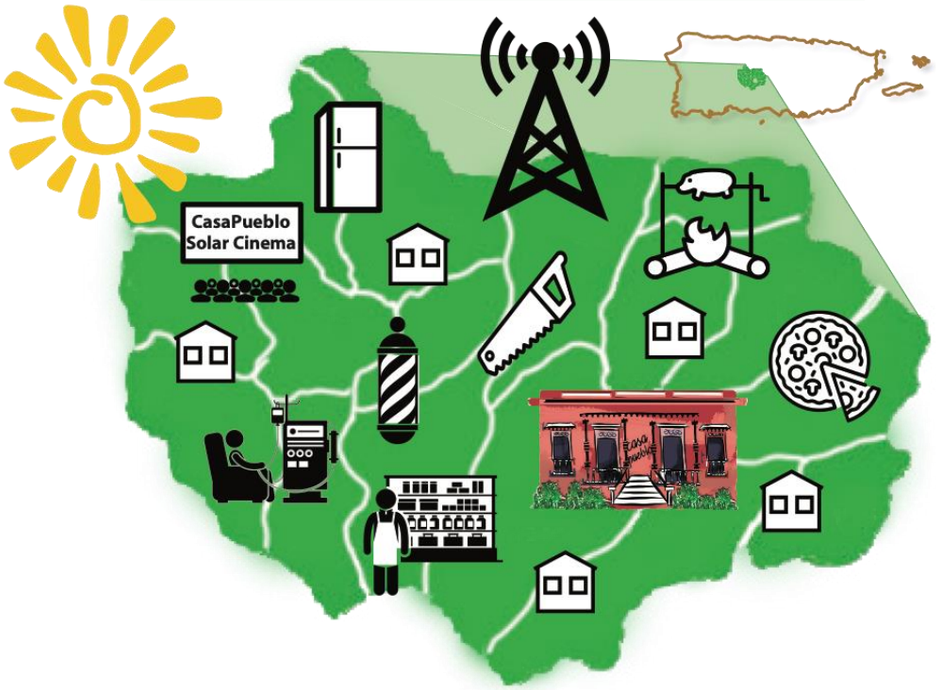
Changing the Energy Landscape in Adjuntas and Puerto Rico

#Autosuficiencia #InsurrecciónEnergética #50conSol

- Casa Pueblo Radio's Solar Transmitter
- Solar Minimarkets: Strategically Located in 6 of Adjuntas' Barrios
- Solar Barber Shop
- Solar Classroom in our Forest School
- 100% Solar Homes: 25 Fireflies
- Solar Cinema
- Casa Pueblo Radio: 100% Solar Powered
- Solar Refrigerators: 54 Units Throughout all of Adjuntas' Barrios
- Restaurants: Vista del Río and El Campo es Leña
- Two Solar Hardware Stores and Other Small Businesses
- Comunidad El Hoyo: 10 Homes with Solar Energy Backup Systems
- 14,000 Solar Lamps: IluminandoPRconSOL
- Workshops and Lectures on Renewable Energy
- Hybrid Biomass Energy Generation Systems
- 5 Permanent Systems for Dialysis Machines
- Cerro Mágico Ecoturism Project

Icons / The Noun Project

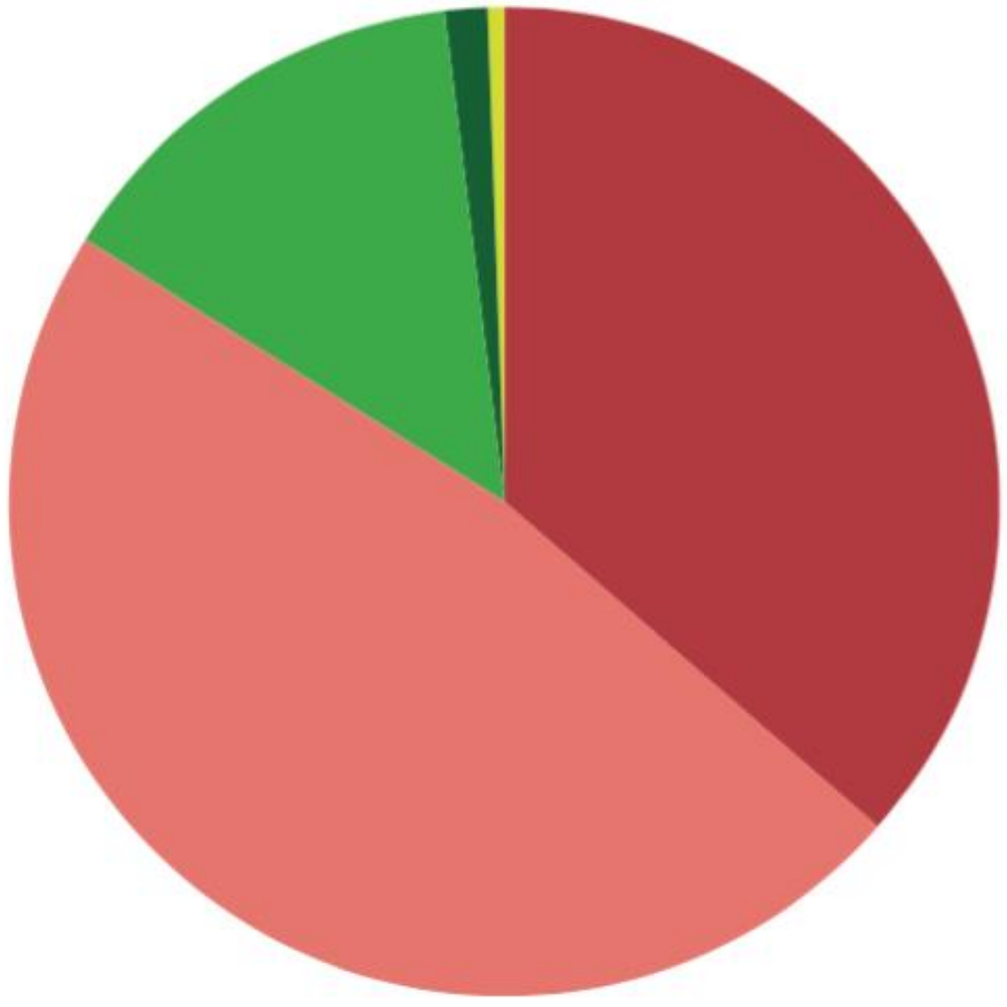




Communications
Innovation
Economic Activation
Food Security & Nutrition
Education
Right to Power
Health
Entertainment

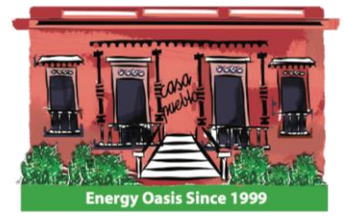
PUERTO RICO 2018

Residential Consumption	**36.50%**
Commercial Consumption	**47.40%**
Industrial Consumption	**14.10%**
Public Lighting	**1.47%**
Agriculture	**0.15%**
Others	**0.31%**



Los Cucubanos - Fireflies

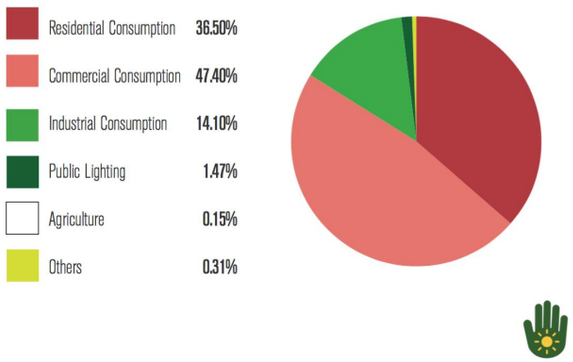
50%conSOL IN THE RESIDENTIAL SECTOR **EQUALS**:



- Average energy **consumption per home is 1.68 kWh**.
- **Six 330 Wp solar panels per home** can meet this consumption level.
- This system, including batteries and installation, costs **$8,000 per home**.
- Wherever electrical service is "stable", the system can be installed without energy storage, thereby reducing the cost to **$5,000 or less**.
- 50%conSOL Residential equals **$481 million in fossil fuel costs saved annually**.
- 50%conSOL Residential equals **NOT needing the Costa Sur power plant's output, or one and a half times that of the San Juan power plant**.
- The use of **solar water heaters** should be maximized in order to minimize electrical consumption for this need.
- It's necessary to invest in **energy efficiency** in order to reduce household consumption and waste. This includes replacing light bulbs, air conditioning, and refrigeration systems with more efficient models, for example LED lights and "inverter" equipment/appliances.

Adjuntas Pueblo Solar

PUERTO RICO 2018



"Resilience is Community Strength”

Science AAAS

PHOTO: DONNA M. RILEY/AL PICHARDO/ASSOCIATED PRESS

EDITORIAL

Renewable energy for Puerto Rico

Puerto Rico is not prepared for another hurricane. A year ago, Hurricane María obliterated the island's electric grid, leading to the longest power outage in U.S. history. This disrupted medical care for thousands and contributed to an estimated 2975 deaths. The hurricane caused over $90 billion in damage for an island already in economic crisis. Although authorities claim that power was restored completely, some residents still lack electricity. Despite recovery efforts, the continued vulnerability of the energy infrastructure threatens Puerto Rico's future. But disruptions create possibilities for change. Hurricane María brought an opportunity to move away from a fossil fuel–dominant system and establish instead a decentralized system that generates energy with clean and renewable sources. This is the path that will bring resilience to Puerto Rico.

Puerto Rico is representative of the Caribbean islands that rely heavily on fossil fuels for electric power; 98% of its electricity comes from imported fossil fuels (oil, natural gas, and coal), whereas only 2% comes from renewable sources (solar, wind, or hydroelectric). The distribution of 6023 MW is challenging, requiring thousands of miles of transmission and distribution lines over the island's steep topography. This makes the island's centralized electrical grid vulnerable to hurricanes that are predicted to increase in severity because of climate change.

In Puerto Rico and the rest of the Caribbean, where sun, wind, water, and biomass are abundant sources of renewable energy, there is no need to rely on fossil fuel technology. Unfortunately, the government of Puerto Rico and the U.S. Federal Emergency Management Agency have been making decisions about the local power authority that are restoring the energy system to what it was before Hurricane María hit, perpetuating fossil fuel reliance.

Despite these decisions, a transformation has begun in communities across Puerto Rico. For example, in the mountain municipality of Adjuntas, local initiatives headed by Casa Pueblo, a self-reliant nonprofit community organization, has increased the installation of solar energy systems. Fortunately, the solar power–based infrastructure of Casa Pueblo was not affected by the hurricane, allowing Adjuntas to serve as the organization's center of operations for immediate local and regional response after the hurricane. Adjuntas became an oasis of power, where people got immediate assistance. Analog solar-based energy systems were designed and installed by Casa Pueblo to supply the needs of numerous entities in the community: medical equipment, such as peritoneal dialysis for homes with patients; a radio transmitter for a community radio station; and equipment for hardware stores, minimarkets, restaurants, and other businesses. Around the island, other examples of off-the-grid local energy production reflect community resilience grounded in projects that foster renewable energy. They include a solar microgrid in Orocovis, multiple community aqueducts, and sustainable farms. These new energy systems are changing the energy landscape of the municipality. But the majority of rural communities is still in need of sustained help.

"...moving away from dependency on imported fossil fuels should be the guiding vision."

At this juncture, when the opportunity to build a sustainable and resilient electrical system presents itself, moving away from dependency on imported fossil fuels should be the guiding vision. Puerto Rico must embrace the renewable endogenous sources that abound on the island and build robust microgrids powered by solar and wind, install hybrid systems (such as biomass biodigesters), and create intelligent networks that can increase the resilience of the island. The Puerto Rican government and U.S. Congress should use Hurricane María as a turning point for pushing Puerto Rico toward using 100% renewable energy rather than a platform to plant generators across the island. The Fiscal Plans approved and certified by the Financial Oversight and Management Board for Puerto Rico, created by Congress in 2016, should be amended to pursue this vision of sustainable development based on renewable energy.

–Arturo Massol-Deyá, Jennie C. Stephens, Jorge L. Colón

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10.1126/science.aav5576

SCENARIO JOURNAL

Arturo A. Massol-Deyá, "**Our Energy for Our Country**,"
Scenario Journal 07: Power, January 2020
https://scenariojournal.com/article/energy-for-our-country/

"Decolonization and building spaces for self-determination is an urgent need. We were raised on a political narrative that told us that we were weak because we are small, that we lack the natural resources to fuel a modern economy, that we are incapable of self-determination. Who needs oil, gas, or coal when we can embrace the renewable natural resources of the future? We have within our reach enough sun, wind, and water to power the Island and much more."

CASA PUEBLO

4 AÑOS

autogestión comunitaria por

Puerto Rico y el Planeta Tierra

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