EDF
ENVIRONMENTAL DEFENSE FUND®
Finding the ways that work

Photo: Jerjes Medina Albino

Rebuilding a Resilient Puerto Rico

Hurricane Maria severely damaged Puerto Rico's infrastructure and created a public health and humanitarian crisis. As the frequency and severity of storms increase, Puerto Rico has an opportunity to be a model of innovation and resilience for areas vulnerable to climate change.

"Puerto Rican officials have estimated it will take an additional $26 billion to upgrade the island's energy grid."

– USA Today, Oct. 22, 2018

Low-carbon microgrids are key to modernizing the island's electric system. These local, renewable electricity sources can operate independently of the main grid in the event of a power failure and can help communities bounce back from powerful storms.

Environmental Defense Fund (EDF) is collaborating with communities to bring these electricity systems to Puerto Rico. We approach this energy vision holistically, leveraging our technical expertise, sustainable financing tools and energy reform initiatives to develop long-term solutions to the island's energy crisis.

Building resilient communities

Low-carbon microgrids improve the overall resilience of the electric grid. They minimize the impact of power outages, and can help Puerto Rico's economy thrive. These microgrids can allow communities to be more energy independent and environmentally sustainable, particularly in rural areas hit hardest by electric service disruptions.

EDF will help bring reliable, affordable energy to communities by designing and building low-carbon microgrids in Puerto Rico. This will protect residents from grid instability and improve resilience in the event of another hurricane or major disruption. These systems will harness clean energy, such as solar, to support economic development and resiliency in rural Puerto Rico and beyond.

ENERGY

"Based on available data, we believe Hurricane Maria has caused the largest blackout in American history."

– Rodhium Group, Oct. 26, 2017

A holistic approach to reconstruction

Technology

In collaboration with local groups and technical experts, EDF will deploy one or more community-scale low-carbon microgrids in rural areas of Puerto Rico. These systems would operate with energy efficiency, solar, energy storage and advanced controls to provide clean, reliable and affordable electricity to families residing in remote locations of the island.

Financing

We will engage public funds, private capital and impact-focused investors to design innovative financing options and business models to attract the financing needed to scale these low-carbon microgrids throughout the island.

Energy reform

EDF will advocate for 'best practices' in microgrid policy and a transition to a modern electricity system by actively participating in utility planning and regulatory reform initiatives.

CASE STUDIES

Grid modernization in Hawaii

In 2017, the Hawaii Public Utilities Commission (PUC) sought to modernize the island's electric system. It focused on the integration of emerging distributed energy resources, like solar and storage, to preserve reliability and enhance grid resiliency and efficiency. A big part of this effort involved supporting customer adoption of these technologies to better manage energy use and costs.

EDF's participation in Hawaii's utility reform process demonstrated the benefits of grid modernization investments for utilities, customers, businesses and the environment. Today, the PUC endorses the Green Button standard, providing people with easy, secure access to their energy use data.

Investor Confidence Project

With 70 percent of the world's estimated nine billion people expected to live in urban areas by 2050, addressing energy use in buildings is essential to curbing climate change. EDF conceived, incubated and developed the Investor Confidence Project (ICP) to build trust in the financial and environmental results of energy efficiency upgrades, as a foundation for investment in energy efficiency.

ICP is a roadmap that helps investors and developers assess risk. It predicts energy savings, outlines ways to optimize grid performance and provides tools to monitor the outcome of energy efficiency investments. When followed, it can help generate greater financial savings and returns for clean energy investors. What started as a philanthropic initiative has morphed into a market-based global standard supported by experts in engineering, finance, real estate and government.

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