

Investing in Puerto Rico’s Clean Energy Future

Puerto Rico is once again [beginning](#) a path to economic growth despite multiple challenges over the past two decades. There is now an opportunity to maintain and bolster that growth through large-scale investment in critical infrastructure. The U.S. Congress has appropriated \$12 billion in relief funding to rebuild Puerto Rico’s energy system, including modernizing the energy grid, in response to the destruction that multiple natural disasters had caused. These funds offer an opportunity for investment in a modern grid that facilitates renewable energy transmission and distribution, as well as in renewable generation infrastructure. A more resilient energy system that uses cleaner, domestically produced sources will protect communities’ health and wellbeing, and provide a strong foundation on which Puerto Rico can further build a future of strong and more equitable economic growth.

Puerto Rico’s 40 Years of Growth Met Challenges in Recent Decades

Puerto Rico was a leader in economic growth from the 1950s through the 1990s.

Puerto Rico’s economy had a [strong](#) record of growth, [starting](#) as far back as the 1950s. Initial growth has been attributed to multiple sources, including [locally-planned](#) New Deal-era federal investment in infrastructure, a shift towards [hydroelectric](#) dams for domestic energy production and rural access to energy, and a [contentious effort](#) to attract manufacturing to the island.

Changes in global trade and U.S. tax law slowed Puerto Rico’s growth.

The introduction of new free trade agreements in the 1990s resulted in [more](#) international [competition](#) for the U.S. manufacturing business that had often gone to Puerto Rico. With this, and the end to federal [tax incentives](#), mainland industry began to leave the island. The island’s GDP continues to [depend](#) on the manufacturing sector, especially medical goods and devices and the emerging aerospace industry. Meanwhile, as of 2019, the largest industries in terms of [employment](#) were retail, health care and social assistance, food and accommodation services, and professional, scientific, and technical services. Small businesses are [major](#) employers on the island, with half of all workers in businesses with less than 100 employees as of 2019.

High energy costs have made it harder for the Puerto Rican economy to grow.

Puerto Rico’s major industries require consistent and affordable electricity to operate effectively. However, the price of energy consumption on the island far exceeds that of any U.S. state outside of Hawaii and Alaska. The grid mainly depends on fossil fuels, which the island must [import](#), further driving up electricity costs. Renewable energy infrastructure can facilitate domestic energy production that could lower prices in the long run, making it easier for Puerto Rico to support current industry, further drive small business growth and diversify the economy.

Puerto Rican Residents and Businesses Pay More for their Energy than Americans on Average			
	Puerto Rico	National	Percent Difference
Residential (cents/kWh)	22.12	16.11	37%
Commercial (cents/kWh)	20.83	12.81	63%
Industrial (cents/kWh)	21.97	8.21	168%

Source: The Energy Information Administration, June 2023. <https://www.eia.gov/state/data.php?sid=RQ>

As growth faltered, government-entity borrowing was used to cover expenses.

Compounding the challenging growth outlook is the sharp [increase](#) in public debt that began after the mid-1990s. Outside investors capitalized on recent legal [loopholes](#) that removed the government's constraints on borrowing, as banks and investors pushed [deals](#) to increase Puerto Rican debt that earned them large [profits](#). Ratings agencies also maintained investment-grade credit ratings for Puerto Rico, which contributed to sustained [investor demand](#) for debt despite Puerto Rico's ongoing [recession](#). Later, when ratings agencies downgraded the island's debt, "[vulture](#)" [firms](#) exploited the island's difficult [position](#) by only lending Puerto Rico the funds it needed to cover older obligations at extremely high interest rates. This further added to Puerto Rico's debt burden, squeezing funds until the governor declared the debt "[unpayable](#)" in 2015.

In 2016, the federal government created the Federal Oversight and Management Board (FOMB) to lead efforts in restructuring Puerto Rican debt. The entity has no direct oversight from the federal government, and is able to enact a budget for Puerto Rico, even when the Puerto Rican legislature is not in [agreement](#) with that budget.

The debt crisis could increase energy costs and endanger future growth.

Puerto Rico formally [emerged](#) from bankruptcy in March 2022, but more than \$9 [billion](#) owed by the public electric utility company, "[PREPA](#)", or "AEE" in Spanish, remains [outstanding](#). The FOMB's debt restructuring plan for PREPA will [determine](#) the [additional](#) amount that customers will pay in their electricity bill each month to repay outside debt-holders. Advocates [are concerned](#) that prices in the FOMB's recent proposal are too high to allow for future economic growth.

Damage to the Energy System Has Prevented Renewed Growth

While Puerto Rico was facing the debt crisis, it confronted multiple natural disasters that destroyed its critical infrastructure.

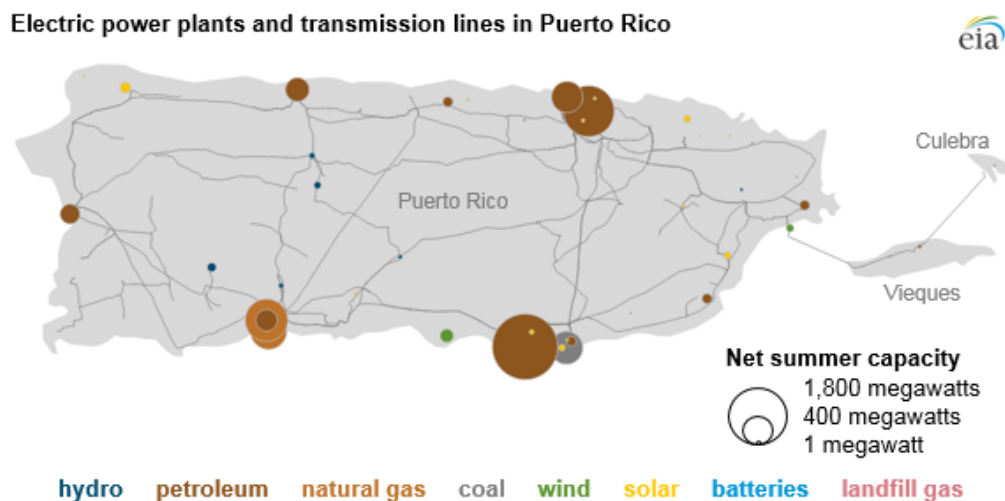
In 2017, Hurricanes Maria and [Irma](#) hit Puerto Rico, causing an estimated \$90 billion in [damages](#). The Trump administration then [delayed](#) emergency funding and funding for permanent [repairs](#) to infrastructure. A Harvard study [estimates](#) that 4,645 people died in the following months, largely due to lack of critical infrastructure repairs and access to electricity for medical devices. Another [study](#), estimating 2,975 deaths after the hurricanes, [found](#) elderly or lower-income residents were most vulnerable in the aftermath. In early 2020, a 6.4-magnitude [earthquake](#) left two-thirds of the island without power. Combined with aftershocks that continued into the summer, the events severely damaged the grid and two major power plants.

In response to these disasters Congress appropriated a [combined](#) \$12 billion to modernize the grid and support Puerto Rico's energy infrastructure, but this has not yet [resulted](#) in comprehensive changes to the system. While the island struggles to access private capital, these funds can serve as the initial investment in a renewable-based system. This also aligns with Puerto Rican [law](#), which requires that the island reach 100% renewable energy dependence by 2050. Moreover, a 2018 JEC [report](#) highlighted that a transition to renewable energy would lower energy prices and create a path to increased growth. Such infrastructure can [also](#) ensure vulnerable communities, whose health depends on access to electricity, are not left without power.

A Clean Energy System Can Provide a Path to Future Prosperity

Despite the significant challenges to its current power system and key industries, Puerto Rico could become a leader in the clean energy transition. Currently, the U.S. Department of Energy's Grid Deployment Office is carrying out a technical study of clean energy resources, with a final report anticipated in January 2024. So far, the study's researchers have [found that](#):

- Puerto Rico already has more than enough untapped domestic renewable energy sources to meet its needs.
- Solar and wind provide more cost-effective energy generation than the current system. By 2025, it will be more cost-effective in terms of operating costs to install new utility-scale solar, land-based wind, and storage, than to continue with existing fossil fuel power.
- Puerto Rico needs more energy capacity immediately to continue meeting the North American Electrical Reliability Corporation's energy resiliency standards for its population.
- Puerto Rico can recover power after natural disasters more quickly with a distributed system of renewable energy sources, spread throughout the island. Currently, the island's major power plants are concentrated on the coasts, meaning that the rural, mountainous regions in the interior are often the first to lose power and the last to get it back.
- A system based in renewable energy would also likely enhance energy resilience. In fact, the 2017 hurricanes and 2020 earthquakes did not heavily damage most [renewable](#) energy sources.



Source: Energy Information Administration. <https://www.eia.gov/todayinenergy/detail.php?id=36613>

Conclusion

Federal funding is available to support Puerto Rico in rebuilding its energy system. By unlocking this funding and ensuring that it is directed towards a new system based in renewable energy, the federal government can help Puerto Rico become a leader in the clean energy transition. Strong growth in this sector offers the opportunity to build more Puerto Rican owned renewable energy businesses, initiate job growth that prioritizes the hiring of Puerto Ricans, protect the wellbeing of local communities, and help secure a new path of economic progress.