

Grantee: Puerto Rico

Grant: B-18-DE-72-0001

October 1, 2022 thru December 31, 2022

Grant Number:

B-18-DE-72-0001

Obligation Date:**Award Date:****Grantee Name:**

Puerto Rico

Contract End Date:

08/05/2028

Review by HUD:

Reviewed and Approved

Grant Award Amount:

\$1,932,347,000.00

Grant Status:

Active

QPR Contact:

No QPR Contact Found

LOCCS Authorized Amount:

\$1,432,347,000.00

Estimated PI/RL Funds:**Total Budget:**

\$1,932,347,000.00

Disasters:

Declaration Number

FEMA-4339-PR

Narratives

Disaster Damage:

More than four (4) years have passed since Hurricanes Irma and María struck Puerto Rico in September of 2017. However, the impact on the power grid remains ever present in the daily lives of Island residents. Power outages are common and unpredictable, electricity prices continue to rise, and rolling blackouts due to insufficient generation have been common. The impact of the hurricanes on the power system was devastating and led to the longest sustained blackout in modern United States (U.S.) history. Without power, residents were unable to gain access to healthcare, communication, refrigeration, water, cooling, and security. With sustained systemic insecurity, residents continue to feel many of the same impacts, economic recovery is hampered, and the cycle of recovery cannot be completed. Energy remains the single most comprehensive and critical factor to the future of the Island.

The Electrical Power System Enhancements and Improvements Action Plan is not a specialized blueprint on the components of the electrical power system in need of repairs. Several extensive studies have already been conducted by Puerto Rico and U.S. governmental agencies, including the Puerto Rico Electric Power Authority (PREPA) 10-Year Infrastructure Plan, the Grid Modernization Plan for Puerto Rico conducted by the Central Office for Recovery, Reconstruction and Resiliency (COR3), the 2021 Fiscal Plan for PREPA as Certified by the Financial Oversight and Management Board for Puerto Rico, and key studies by the U.S. Department of Energy (DOE). This Action Plan seeks to adjust critical findings from these reports and identify the remaining unmet need for communities that stand vulnerable to the impacts of power insecurity. It aims to discern resilience opportunities for long-term system enhancement for the benefit of all residents.

Electrical Power System Recovery Needs:

Hurricanes Irma and María devastated 80% of the Islands' electric power system. Therefore, the initial immediate recovery process was implemented in such a way as to provide electric service to the people of the Islands in the fastest possible way. This meant that expediency reigned instead of the deep reconstructive approach that would have taken much longer and for which funding and resources were not immediately available. Because of this, the people of Puerto Rico face a lack of continuity of electric power service in great part due to the system's weakness. The need for permanent solutions to ensure system resiliency and sustainability must be a priority moving forward.

The U.S. Department of Energy aptly points out, "[m]aintaining and enhancing the resilience of the electric grid at fair and reasonable costs can provide service and value to Puerto Rican communities. Yet, no single investment in energy infrastructure at one point in time will achieve resilience." (Emphasis added) One of the goals set by PRDOH is to maximize the appropriated use of CDBG-DR Program funds, which will result in the coordination and engagement of governmental and non-governmental stakeholders to successfully detail and identify unmet needs.

PRDOH has developed the Electrical System Enhancements and Improvement Programs founded on the allocation requirements as well as identified unmet needs. Along with incorporating input from disaster-impacted municipalities, utilities, and other stakeholders.

HUD defines an electrical power system in a broad way. Bringing together the many components that contribute to the proper operation of the grid, including physical assets for generation, transmission, and distribution, as well as technological and administrative components. Specifically, the definition is stated in 86 FR 32681, 32692:

"An electrical power system shall be defined as an interconnected or autonomous set of transmission lines, distribution lines, substations, central power generation stations, other sources of power, distributed energy resources, or enabling technologies and services, such as industry standard billing, accounting information technology, cybersecurity enhancements, microgrids and fuel transfer delivery systems, that are necessary for the provision of reliable, resilient, stable, and cost effective electrical service."

The main objective of the CDBG-DR Program is to support the economic and social development of Puerto Rico's communities, providing quality of life, safety, security, and growth opportunities for the future of all residents. The availability of CDBG-DR funds provides a unique opportunity to improve quality of life on the Island and strengthen the economy through electric power system enhancements. Lessons learned from the catastrophic events of Irma and María will



give Puerto Rico the choice to be more resilient, more robust, wiser, and to rise in a sustainable manner. The state of emergency caused by Hurricanes Irma and María is felt every day and still very present in Puerto Rico. The current condition of the electrical power system is critical. Without the implementation of transformative mitigation and resilience phases, the system will remain extremely weak and susceptible to collapse from any future major event, in which vulnerable communities will suffer the most, once again. Every community in Puerto Rico deserves to enjoy a strong, reliable, and resilient electrical power system that ensures the tranquility of the people and a better quality of life for its residents.

Overall	This Report Period	To Date
Total Projected Budget from All Sources	\$0.00	\$1,432,347,000.00
Total Budget	\$0.00	\$1,432,347,000.00
Total Obligated	\$18,683.35	\$18,683.35
Total Funds Drawdown	\$18,683.35	\$18,683.35
Program Funds Drawdown	\$18,683.35	\$18,683.35
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$18,683.35	\$18,683.35
HUD Identified Most Impacted and Distressed	\$0.00	\$0.00
Other Funds	\$ 0.00	\$ 0.00
Match Funds	\$ 0.00	\$ 0.00
Non-Match Funds	\$ 0.00	\$ 0.00

Funds Expended

Overall	This Period	To Date
Puerto Rico Department of Housing	\$ 18,683.35	\$ 18,683.35

Progress Toward Required Numeric Targets

Requirement	Target	Projected	Actual
Overall Benefit Percentage	70.00%	70.00%	.00%
Overall Benefit Amount	\$1,271,484,326.00	\$921,484,326.00	\$5,121.51
Limit on Public Services	\$289,852,050.00	\$0.00	\$0.00
Limit on Admin/Planning	\$386,469,400.00	\$115,940,820.00	\$11,366.95
Limit on Admin	\$96,617,350.00	\$96,617,350.00	\$5,704.56
Most Impacted and Distressed	\$1,932,347,000.00	\$1,432,347,000.00	\$0.00

Overall Progress Narrative:

The objectives for the Electrical Power Reliability and Resilience (ER2) Program is to enhance electrical power system reliability and resilience through the funding of strategic and competitive projects that qualify as Electrical Power System Enhancements and Improvements, with the majority anticipated to be distributed energy generation resources and microgrids.

The Program will launch during Q1 2023 with the publishing of its flagship strategic project, the Centro Medico Microgrid (CMM) to improve the reliability and resilience of the hospital complex's electrical system operation to ensure that the critical services the complex provides can continue under any circumstance. Key Stakeholders like DOE, NREL, Sandia, PREB, LUMA, PREPA, and ASEM, among others, are being consulted throughout the development of the RFP documents for the CMM.

Close collaboration and technical Assistance from DOE and its National Laboratories continue through the development of the methodology for the selection of other strategic microgrids and through the review of documents like the Program Guidelines. Weekly meetings are conducted to address ongoing work and priority items for the Program.

In addition, the evaluation of proposals for Program Management services is underway with an expectation to have the provider(s) awarded during Q1 2023.

Project Summary

Project #, Project Title	This Report	To Date	
	Program Funds Drawdown	Project Funds Budgeted	Program Funds Drawdown



9999, Restricted Balance	\$0.00	\$500,000,000.00	\$0.00
Administrative B-18-DE-72-0001, Energy Program	\$5,704.56	\$96,617,350.00	\$5,704.56
Infrastructure ER1 B-18-DE-72-0001, Infrastructure Energy	\$0.00	\$0.00	\$0.00
Infrastructure ER2 B-18-DE-72-0001, Infrastructure Energy	\$7,316.40	\$1,316,406,180.00	\$7,316.40
Planning B-18-DE-72-0001, Energy Program Planning	\$5,662.39	\$19,323,470.00	\$5,662.39

