**Grantee: Puerto Rico** 

Grant: B-18-DE-72-0001

October 1, 2023 thru December 31, 2023

Grant Number: Obligation Date: Award Date:

B-18-DE-72-0001

Grantee Name: Contract End Date: Review by HUD:

Puerto Rico 08/05/2028 Submitted - Await for Review

**Grant Award Amount:**\$1,932,347,000.00

Active

Grant Status:

QPR Contact:

No QPR Contact Found

LOCCS Authorized Amount: Estimated PI/RL Funds:

\$1,932,347,000.00 \$0.00

**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.

system resiliency and sustainability must be a priority moving forward.

The U.S. Department of Energy aptly points out, "[maintaining 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,

"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 thatensures 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	\$1,932,347,000.00
Total Budget	\$0.00	\$1,932,347,000.00
Total Obligated	\$140,539.11	\$12,074,987.62
Total Funds Drawdown	\$95,587.84	\$262,298.04
Program Funds Drawdown	\$95,587.84	\$262,298.04
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$95,587.84	\$262,298.04
<b>HUD Identified Most Impacted and Distressed</b>	\$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	\$ 95,587.84	\$ 262,298.04

# **Progress Toward Required Numeric Targets**

Requirement	Target	<b>Projected</b>	Actual
Overall Benefit Percentage	70.00%	70.00%	.01%
Overall Benefit Amount	\$1,271,484,326.00	\$1,271,484,326.00	\$116,246.51
Limit on Public Services	\$289,852,050.00	\$.00	\$.00
Limit on Admin/Planning	\$386,469,400.00	\$115,940,820.00	\$96,553.34
Limit on Admin	\$96,617,350.00	\$96,617,350.00	\$83,997.80
Most Impacted and Distressed	\$1,932,347,000.00	\$1,582,347,000.00	\$.00

# **Overall Progress Narrative:**

During the reporting period, the Puerto Rico Department of Housing (PRDOH) executed a Subrecipient Agreement with the Department of Economic Development and Commerce for the implementation of the Energy Support Program under ER2. Technical Assistance from DOE and the National Laboratories continued with recurrent meetings, workshops, and in-person events. Additionally, PRDOH published the Program Guidelines for ER1.

# **Project Summary**

Project #, Project Title	This Report	To Date	
	Program Funds Drawdown	Project Funds Budgeted	Program Funds Drawdown
9999, Restricted Balance	\$0.00	\$0.00	\$0.00
Administrative B-18-DE-72-0001, Energy Program	\$25,206.35	\$96,617,350.00	\$83,997.80



Infrastructure ER1 B-18-DE-72-0001, Infrastructure Energy	\$0.00	\$500,000,000.00	\$0.00
Infrastructure ER2 B-18-DE-72-0001, Infrastructure Energy	\$70,306.21	\$1,316,406,180.00	\$165,744.70
Planning B-18-DE-72-0001, Energy Program Planning	\$75.28	\$19,323,470.00	\$12,555.54

# **Activities**

Project # / Administrative B-18-DE-72-0001 / Energy Program



# Grantee Activity Number: ESP-ADMDOH-NA Activity Title: Energy Program Administration

Activity Type:

Administration

**Project Number:** 

Administrative B-18-DE-72-0001

**Projected Start Date:** 

08/05/2022

**Benefit Type:** 

N/A

**National Objective:** 

N/A

**Activity Status:** 

**Under Way** 

**Project Title:** 

**Energy Program Administration** 

**Projected End Date:** 

08/05/2028

**Completed Activity Actual End Date:** 

**Responsible Organization:** 

Puerto Rico Department of Housing

Overall	Oct 1 thru Dec 31, 2023	To Date
Total Projected Budget from All Sources	\$0.00	\$96,617,350.00
Total Budget	\$0.00	\$96,617,350.00
Total Obligated	\$23,102.44	\$123,580.23
Total Funds Drawdown	\$25,206.35	\$83,997.80
Program Funds Drawdown	\$25,206.35	\$83,997.80
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$25,206.35	\$83,997.80
Puerto Rico Department of Housing	\$25,206.35	\$83,997.80
Most Impacted and Distressed Expended	\$0.00	\$0.00

### **Activity Description:**

PRDOH is the administrative entity responsible for administering CDBG-DR, CDBG-MIT, and CDBG-DR Energy funds as allocated by HUD.

## **Location Description:**

The location of the personnel administrating this fund will be at the Puerto Rico Department of Housing located in San Juan, Puerto Rico.

# **Activity Progress Narrative:**

For ER2, Technical Assistance from DOE and the National Laboratories continued with recurrent meetings workshops, and inperson events. The ER2 contract for Program Management services, executed in the prior reporting period, continued implementation. The scope of work, responsibilities, and activities for the PM under this contract includes the following highlevel tasks as needed:

- Overall program management and administration, including operational support, program and project management, document control and management, and accounting and reporting;
- Project selection, including development/refinement of project selection criteria and methodology, technical assistance, application review and capacity assessment, financial evaluation, environmental review, and agreement execution;
- Project implementation, including award management and scheduling, property acquisition monitoring and technical assistance, procurement monitoring, design development monitoring, permitting monitoring, environmental compliance monitoring, construction monitoring, commissioning and operations and maintenance (O&M) plan review, regulatory compliance monitoring, and review and recommendation of payment requests.



• Administrative closeout to include both project-specific and overall programmatic closeout.

PRDOH's oversight plan for this contract is to utilize established oversight and monitoring tools and resources as well as its Grant Management Team to monitor the PM's activities and performance through close coordination and collaboration throughout the life of the contract and during each phase of the ER2 Program.

# **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

## **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.

**Other Funding Sources** 

No Other Funding Sources Found

# **Other Funding Sources Budgeted - Detail**

**No Other Match Funding Sources Found** 

Activity Supporting Documents: None

Project # / Infrastructure ER1 B-18-DE-72-0001 / Infrastructure Energy



# Grantee Activity Number: ESP-IER1DOH-LMI Activity Title: Energy Grid Rehab and Recon ER1 LM

**Activity Type:** 

Electrical power system improvements

**Project Number:** 

Infrastructure ER1 B-18-DE-72-0001

**Projected Start Date:** 

08/05/2022

**Benefit Type:** 

Area (Census)

**National Objective:** 

Low/Mod

**Activity Status:** 

Planned

**Project Title:** 

Infrastructure Energy Program ER1

**Projected End Date:** 

08/05/2028

**Completed Activity Actual End Date:** 

**Responsible Organization:** 

Puerto Rico Department of Housing

Overall	Oct 1 thru Dec 31, 2023	To Date
Total Projected Budget from All Sources	\$0.00	\$350,000,000.00
Total Budget	\$0.00	\$350,000,000.00
Total Obligated	\$0.00	\$0.00
Total Funds Drawdown	\$0.00	\$0.00
<b>Program Funds Drawdown</b>	\$0.00	\$0.00
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$0.00	\$0.00
Puerto Rico Department of Housing	\$0.00	\$0.00
Most Impacted and Distressed Expended	\$0.00	\$0.00

## **Activity Description:**

The purpose of this program is to maximize the benefit of federal grant programs by positioning CDBG-DR as the ideal local match program to other federal funding streams. This approach will relieve the financial burden related to the recovery efforts of Puerto Rico's Electrical Grid and Puerto Rico's long-term infrastructure resilience needs. Through the matching of funding provided by other federal agencies, critical infrastructure needs will be addressed making the Island more adaptable to changing conditions and able to withstand and recover rapidly from disruptions caused by future disasters. At this time, most long-term reconstruction projects are still in preparation. As a result, the exact amount of CDBG-DR funds necessary to meet the entire universe of non-federal match requirements is still being assessed. PRDOH will collaborate with COR3 on long-term natural hazards resilience strategies and how infrastructure investments align with other planned Puerto Rican or local capital improvements.

# **Location Description:**

Improvement of electrical power system throughout the island.

# **Activity Progress Narrative:**

During the reporting period, the Puerto Rico Department of Housing (PRDOH) launched the ER1 Program with the publication of the Program Guidelines on October 26, 2023.

The ER1 program has also continued its coordination with COR3 & FEMA regarding the FEMA PA projects already approved under the PREPA FAASt PW, which is expected to be the primary source of ER1 projects.



# **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

# **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.

**Other Funding Sources** 

No Other Funding Sources Found

# **Other Funding Sources Budgeted - Detail**

**No Other Match Funding Sources Found** 

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# Grantee Activity Number: ESP-IER1DOH-UN Activity Title: Energy Grid Rehab and Recon ER1 UN

**Activity Type:** 

Electrical power system improvements

**Project Number:** 

Infrastructure ER1 B-18-DE-72-0001

**Projected Start Date:** 

08/05/2022

**Benefit Type:** 

Area (Census)

**National Objective:** 

**Urgent Need** 

**Activity Status:** 

Planned

**Project Title:** 

Infrastructure Energy Program ER1

**Projected End Date:** 

08/05/2028

**Completed Activity Actual End Date:** 

**Responsible Organization:** 

Puerto Rico Department of Housing

Overall	Oct 1 thru Dec 31, 2023	
Total Projected Budget from All Sources	\$0.00	\$150,000,000.00
Total Budget	\$0.00	\$150,000,000.00
Total Obligated	\$0.00	\$0.00
Total Funds Drawdown	\$0.00	\$0.00
Program Funds Drawdown	\$0.00	\$0.00
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$0.00	\$0.00
Puerto Rico Department of Housing	\$0.00	\$0.00
Most Impacted and Distressed Expended	\$0.00	\$0.00

## **Activity Description:**

The purpose of this program is to maximize the benefit of federal grant programs by positioning CDBG-DR as the ideal local match program to other federal funding streams. This approach will relieve the financial burden related to the recovery efforts of Puerto Rico's Electrical Grid and Puerto Rico's long-term infrastructure resilience needs. Through the matching of funding provided by other federal agencies, critical infrastructure needs will be addressed making the Island more adaptable to changing conditions and able to withstand and recover rapidly from disruptions caused by future disasters. At this time, most long-term reconstruction projects are still in preparation. As a result, the exact amount of CDBG-DR funds necessary to meet the entire universe of non-federal match requirements is still being assessed. PRDOH will collaborate with COR3 on long-term natural hazards resilience strategies and how infrastructure investments align with other planned Puerto Rican or local capital improvements.

# **Location Description:**

Improvement of electrical power system throughout the island.

# **Activity Progress Narrative:**

During the reporting period, the Puerto Rico Department of Housing (PRDOH) launched the ER1 Program with the publication of the Program Guidelines on October 26, 2023.

The ER1 program has also continued its coordination with COR3 & FEMA regarding the FEMA PA projects already approved under the PREPA FAASt PW, which is expected to be the primary source of ER1 projects.



# **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

# **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.

**Other Funding Sources** 

No Other Funding Sources Found

# **Other Funding Sources Budgeted - Detail**

**No Other Match Funding Sources Found** 

Activity Supporting Documents: None

Project # / Infrastructure ER2 B-18-DE-72-0001 / Infrastructure Energy



# **Grantee Activity Number: ESP-IER2DOH-LMI Activity Title: Electric Power Resilience ER2 LM**

**Activity Type:** 

Electrical power system improvements

**Project Number:** 

Infrastructure ER2 B-18-DE-72-0001

**Projected Start Date:** 

08/05/2022

**Benefit Type:** 

Area (Census)

**National Objective:** 

Low/Mod

**Activity Status:** 

**Under Way** 

**Project Title:** 

Infrastructure Energy Program ER2

**Projected End Date:** 

08/05/2028

**Completed Activity Actual End Date:** 

Oct 1 thru Dec 31, 2023 To Date

**Responsible Organization:** 

Puerto Rico Department of Housing

#### Overall

Overan	Oct 1 till a Dec 31, 2023	10 Date
Total Projected Budget from All Sources	\$0.00	\$921,484,326.00
Total Budget	\$0.00	\$921,484,326.00
Total Obligated	(\$2,395,581.85)	\$8,345,170.16
Total Funds Drawdown	\$49,214.38	\$116,246.51
Program Funds Drawdown	\$49,214.38	\$116,246.51
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$49,214.38	\$116,246.51
Puerto Rico Department of Housing	\$49,214.38	\$116,246.51
Most Impacted and Distressed Expended	\$0.00	\$0.00

### **Activity Description:**

The Electrical Power Reliability and Resilience Program (ER2) provides assistance to applicants and subrecipients to create electrical system reliability and resilience. The program will serve the needs of communities by funding projects that are not currently anticipated to be funded from other federal or local sources. For construction activities, the awardee or subrecipient must agree to budget the operations and maintenance activities for the long-term sustainability of the electrical power system improvements. These multi-vear budgets for operations and maintenance will apply for the useful life of the improvement or enhancement. Projects must demonstrate leverage, with the ER2 award consisting of not more than 60% of the proposed project cost, depending on the size and scale, and other factors of the project, as it will be outlined in the Program Guidelines. Publicly owned projects may receive an award up to 100% of the proposed project cost. Program funds will be provided for infrastructure and physical assets that qualify as Electrical Power System Improvements. Projects are encouraged to integrate energy assets and contribute to the diversification of energy resources. Projects pursued as Microgrids shall conform to the Microgrid Regulations, as approved by the Puerto Rico Energy Bureau (PREB).198 Projects will be evaluated to identify opportunities for alignment with efforts to increase energy efficiency. PRDOH anticipates that approximately 80% of projects funded under ER2 will qualify as Other sources of power, distributed energy, microgrids components. PRDOH understands the importance of proper land-use, so projects proposed as solar farms may only be allowed in accordance with permissible landuse, permits and applicable zoning regulations. PRDOH will seek opportunities to utilize brownfields and the built environment as per EPA guidance and recommendations. PRDOH may use procurement methods in accordance with PRDOH policies and procedures. Additionally, PRDOH may utilize direct and subrecipient selection methods in accordance with its policies and procedures and Program Guidelines. Eligible activities to be outlined in the Program Guidelines may include, but are not limited to, the range of eligible activities allowable under PREB microgrid and renewable energy regulations such as



renewable, hybrid, and combined heat and power (CHP) microgrids or mini-grids, and electric power based on solar energy to foster distributed power generation (DGs). Potential models may include business structures such as Community Solar, Energy Wheeling, Power Purchase and Operating Agreements (PPOA), Private Utility, or other business models approved by PREB. To strengthen coordination with other relevant governmental agencies of Puerto Rico, PRDOH may work closely with those relevant governmental agencies in the review of potential activities.

The ER2 Program allocation will be used for the following:

\*The strategic selection of eligible projects of public benefit selected by PRDOH and other critical stakeholders; and/or

\*The competitive selection of eligible projects proposed by eligible entities through an application process.

## **Location Description:**

Improvement of electrical power system throughout the island.

### **Activity Progress Narrative:**

During the reporting period, the Puerto Rico Department of Housing (PRDOH) continued the development and approval of ER2 Competitive Application materials such as project selection standard operating procedures and checklists and applicant notifications. The application intake period was extended until January 30, 2024. At this time the competitive application process has 64 registered entities and 71 total applications (66 are in draft and 5 have been submitted).

The Centro Medico Microgrid (CMM) Design, Construction, Operations, and Maintenance Request for Proposals Technical Committee, comprised of members of PRDOH and its Grant Manager, the U.S. Department of Energy (DOE), two National Labs, LUMA Energy, and the Puerto Rico Medical Services Administration (ASEM for Spanish acronym), completed its review of the technical proposals. PRDOH also facilitated an oral presentation with the CMM Technical Committee and the Proponent to obtain clarity on the proposal to progress the technical proposal review and recommendation.

Regarding additional ER2 strategic projects, PRDOH received two proposed projects from the Puerto Rico Aqueducts and Sewers Authority (PRASA): one for the North Coast Super Aqueduct Microgrid project and another for the Fajardo Ground Solar Panels project. Both projects are under PRDOH review for potential selection. Additionally, the Puerto Rico Department of Economic Development and Commerce's (DEDC) Energy Support Program Guidelines were finalized and the Subrecipient Agreement (SRA) with DEDC was executed.

Both strategic and competitive projects under ER2 will aim to achieve a variety of measurable outcomes, including but not limited to a reduction in the frequency and duration of electric service disruptions for LMI residents and critical facilities/services; reduction in the utility's costs related to generation, transmission and distribution, operations and maintenance, and administration; reduction in electricity consumption from fossil fuel generation sources and an increase in renewables generation; and an overall reduction in energy costs and usage through improved electric service reliability and resilience. Additional proposed performance measures include, but are not necessarily limited to:

- · reduction in loss of service,
- reduction in emergency maintenance costs,
- of public facilities,
- of Linear feet of Public Improvement,
- of green infrastructure projects constructed
- of fewer outages of critical facilities and utilities,
- of vacant lots repurposed,
- decrease in disruption hours to residents and businesses from impacts of storm events,
- reduction in energy costs,
- of area electrical demand generated from the facility,
- reduction in the number of kWh of electricity consumed on-site, #
- of micro-grids constructed to sustain critical services during a power outage,
- decrease in the number of inaccessible days,
- · of area electrical demand generated from the facility,
- reduction in kWh used. % reduction in utility costs

PRDOH held multiple meetings with HUD, DOE, and the National Lab Technical Assistance team during the reporting period to discuss performance measures. A challenge identified in the development of these performance measures is access to critical data from the utility that is necessary for the establishment of baselines and reporting on the outcomes. As projects are reviewed, selected, and developed, PRDOH will define additional accomplishments and performance measures that better reflect available resources for measurement and reporting.

## **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

# **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.



# **Other Funding Sources**

No Other Funding Sources Found

# Other Funding Sources Budgeted - Detail

**No Other Match Funding Sources Found** 

Activity Supporting Documents: None
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# **Grantee Activity Number: ESP-IER2DOH-UN Activity Title: Electric Power Resilience ER2 UN**

**Activity Type:** 

Electrical power system improvements

**Project Number:** 

Infrastructure ER2 B-18-DE-72-0001

**Projected Start Date:** 

08/05/2022

**Benefit Type:** 

Area (Census)

**National Objective:** 

**Urgent Need** 

**Activity Status:** 

**Under Way** 

**Project Title:** 

Infrastructure Energy Program ER2

**Projected End Date:** 

08/05/2028

**Completed Activity Actual End Date:** 

Oct 1 thru Dec 31, 2023 To Date

**Responsible Organization:** 

Puerto Rico Department of Housing

### **Overall**

Total Projected Budget from All Sources	\$0.00	\$394,921,854.00
Total Budget	\$0.00	\$394,921,854.00
Total Obligated	\$2,512,943.24	\$3,557,681.69
Total Funds Drawdown	\$21,091.83	\$49,498.19
Program Funds Drawdown	\$21,091.83	\$49,498.19
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$21,091.83	\$49,498.19
Puerto Rico Department of Housing	\$21,091.83	\$49,498.19
Most Impacted and Distressed Expended	\$0.00	\$0.00

## **Activity Description:**

The Electrical Power Reliability and Resilience Program (ER2) provides assistance to applicants and subrecipients to create electrical system reliability and resilience. The program will serve the needs of communities by funding projects that are not currently anticipated to be funded from other federal or local sources. For construction activities, the awardee or subrecipient must agree to budget the operations and maintenance activities for the long-term sustainability of the electrical power system improvements. These multi-vear budgets for operations and maintenance will apply for the useful life of the improvement or enhancement. Projects must demonstrate leverage, with the ER2 award consisting of not more than 60% of the proposed project cost, depending on the size and scale, and other factors of the project, as it will be outlined in the Program Guidelines. Publicly owned projects may receive an award up to 100% of the proposed project cost. Program funds will be provided for infrastructure and physical assets that qualify as Electrical Power System Improvements. Projects are encouraged to integrate energy assets and contribute to the diversification of energy resources. Projects pursued as Microgrids shall conform to the Microgrid Regulations, as approved by the Puerto Rico Energy Bureau (PREB).198 Projects will be evaluated to identify opportunities for alignment with efforts to increase energy efficiency. PRDOH anticipates that approximately 80% of projects funded under ER2 will qualify as Other sources of power, distributed energy, microgrids components. PRDOH understands the importance of proper land-use, so projects proposed as solar farms may only be allowed in accordance with permissible landuse, permits and applicable zoning regulations. PRDOH will seek opportunities to utilize brownfields and the built environment as per EPA guidance and recommendations. PRDOH may use procurement methods in accordance with PRDOH policies and procedures. Additionally, PRDOH may utilize direct and subrecipient selection methods in accordance with its policies and procedures and Program Guidelines. Eligible activities to be outlined in the Program Guidelines may include, but are not limited to, the range of eligible activities allowable under PREB microgrid and renewable energy regulations such as



renewable, hybrid, and combined heat and power (CHP) microgrids or mini-grids, and electric power based on solar energy to foster distributed power generation (DGs). Potential models may include business structures such as Community Solar, Energy Wheeling, Power Purchase and Operating Agreements (PPOA), Private Utility, or other business models approved by PREB. To strengthen coordination with other relevant governmental agencies of Puerto Rico, PRDOH may work closely with those relevant governmental agencies in the review of potential activities.

The ER2 Program allocation will be used for the following:

\*The strategic selection of eligible projects of public benefit selected by PRDOH and other critical stakeholders; and/or

\*The competitive selection of eligible projects proposed by eligible entities through an application process.

# **Location Description:**

Improvement of electrical power system throughout the island.

### **Activity Progress Narrative:**

During the reporting period, the Puerto Rico Department of Housing (PRDOH) continued the development and approval of ER2 Competitive Application materials such as project selection standard operating procedures and checklists and applicant notifications. The application intake period was extended until January 30, 2024. At this time the competitive application process has 64 registered entities and 71 total applications (66 are in draft and 5 have been submitted).

The Centro Medico Microgrid (CMM) Design, Construction, Operations, and Maintenance Request for Proposals Technical Committee, comprised of members of PRDOH and its Grant Manager, the U.S. Department of Energy (DOE), two National Labs, LUMA Energy, and the Puerto Rico Medical Services Administration (ASEM for Spanish acronym), completed its review of the technical proposals. PRDOH also facilitated an oral presentation with the CMM Technical Committee and the Proponent to obtain clarity on the proposal to progress the technical proposal review and recommendation.

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- of public facilities,
- of Linear feet of Public Improvement,
- of green infrastructure projects constructed
- of fewer outages of critical facilities and utilities,
- of vacant lots repurposed,
- decrease in disruption hours to residents and businesses from impacts of storm events,
- reduction in energy costs,
- of area electrical demand generated from the facility,
- reduction in the number of kWh of electricity consumed on-site, #
- of micro-grids constructed to sustain critical services during a power outage,
- decrease in the number of inaccessible days,
- · of area electrical demand generated from the facility,
- reduction in kWh used. % reduction in utility costs

PRDOH held multiple meetings with HUD, DOE, and the National Lab Technical Assistance team during the reporting period to discuss performance measures. A challenge identified in the development of these performance measures is access to critical data from the utility that is necessary for the establishment of baselines and reporting on the outcomes. As projects are reviewed, selected, and developed, PRDOH will define additional accomplishments and performance measures that better reflect available resources for measurement and reporting.

## **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

# **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.



## **Other Funding Sources**

No Other Funding Sources Found

# **Other Funding Sources Budgeted - Detail**

**No Other Match Funding Sources Found** 

Activity Supporting Documents: None

Project # / Planning B-18-DE-72-0001 / Energy Program Planning



# Grantee Activity Number: ESP-PLNDOH-NA Activity Title: Energy Program Planning

Activity Type: Activity Status:

Planning Under Way

Project Number: Project Title:

Planning B-18-DE-72-0001 Energy Program Planning

Projected Start Date: Projected End Date:

08/05/2022 08/05/2028

Benefit Type: Completed Activity Actual End Date:

National Objective: Responsible Organization:

N/A Puerto Rico Department of Housing

Overall	Oct 1 thru Dec 31, 2023	To Date
Total Projected Budget from All Sources	\$0.00	\$19,323,470.00
Total Budget	\$0.00	\$19,323,470.00
Total Obligated	\$75.28	\$48,555.54
Total Funds Drawdown	\$75.28	\$12,555.54
Program Funds Drawdown	\$75.28	\$12,555.54
Program Income Drawdown	\$0.00	\$0.00
Program Income Received	\$0.00	\$0.00
Total Funds Expended	\$75.28	\$12,555.54
Puerto Rico Department of Housing	\$75.28	\$12,555.54
Most Impacted and Distressed Expended	\$0.00	\$0.00

## **Activity Description:**

On the Planning side, electric vehicles will quickly become an important consideration for the Island energy improvements. DDEC outlined an initiative for a three-phase approach to planning for EV integration, including research and planning, an infrastructure deployment program, and community engagement and education. PRDOH will fund these activities under the planning funds, starting with Phase one (1) for Research and Strategic Planning, and funding Phases two (2) to three (3) upon successful completion of Phase one (1), while also allowing DDEC to explore funding options through DOE or other sources.

## **Location Description:**

The planning activities for this fund will be carried at the Puerto Rico Department of Housing located in San Juan, Puerto Rico.

# **Activity Progress Narrative:**

During the reporting period, meetings with DOE and the National Labs were conducted to support identifying additional strategic projects for the ER2 program. The Centro Medico Microgrid (CMM) RFP Technical Committee composed of PRDOH, ASEM, LUMA, DOE, and Sandia and NREL National Labs, completed their review of proposals and provided their report to the PRDOH Evaluation Committee. LUMA and Genera responded to a Request for Information to provide potential proposed strategic projects aimed at addressing their identified unmet needs. PRASA provided two proposed projects for evaluation under the Strategic track: the North Coast Super Aqueduct energy resilience project and the Fajardo Ground Solar Panels Project which are under evaluation.



# **Accomplishments Performance Measures**

**No Accomplishments Performance Measures** 

# **Beneficiaries Performance Measures**

No Beneficiaries Performance Measures found.

# **Activity Locations**

No Activity Locations found.

**Other Funding Sources** 

No Other Funding Sources Found

# **Other Funding Sources Budgeted - Detail**

**No Other Match Funding Sources Found** 

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