

**GOVERNMENT OF PUERTO RICO  
PUERTO RICO PUBLIC SERVICE REGULATORY BOARD  
PUERTO RICO ENERGY BUREAU**

**NEPR**

**Received:**

**May 24, 2023**

**11:08 AM**

**IN RE:**

IN RE: REVIEW OF THE PUERTO RICO  
ELECTRIC POWER AUTHORITY'S 10-  
YEAR INFRASTRUCTURE PLAN-  
DECEMBER 2020

**CASE NO. NEPR-MI-2021-0002**

**SUBJECT: Motion Submitting Five FEMA  
Approvals of Projects, Request for Confidential  
Treatment, and Supporting Memorandum of Law**

**MOTION SUBMITTING FIVE FEMA APPROVAL OF PROJECTS,  
REQUEST FOR CONFIDENTIAL TREATMENT AND SUPPORTING  
MEMORANDUM OF LAW**

**TO THE PUERTO RICO ENERGY BUREAU:**

COME NOW LUMA Energy, LLC<sup>1</sup>, and LUMA Energy ServCo, LLC<sup>2</sup>, (jointly referred to as "LUMA"), through the undersigned legal counsel and respectfully submits the following:

**I. Submittal of FEMA Approvals and Request for Confidentiality**

1. On March 26, 2021, this Honorable Puerto Rico Energy Bureau ("Energy Bureau") issued a Resolution and Order in the instant proceeding, ordering, in pertinent part, that the Puerto Rico Electric Power Authority ("PREPA") submit to the Energy Bureau the specific transmission and distribution projects ("T&D Projects" or "Projects") to be funded with Federal Emergency Management Agency ("FEMA") funds or any other federal funds at least thirty (30) calendar days prior to submitting these Projects to the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3"), FEMA or any other federal agency ("March 26<sup>th</sup> Order"). It also directed PREPA to continue reporting to the Energy Bureau and FEMA within the next five years,

---

<sup>1</sup> Register No. 439372.

<sup>2</sup> Register No. 439373.

the progress of all ongoing efforts related to the approval of the submitted Projects not yet approved by the Energy Bureau. This Energy Bureau thereafter determined that this directive applied to PREPA and LUMA. *See* Resolution and Order of August 20, 2021.

2. On August 30, 2021, LUMA filed a *Motion Requesting Clarification of a Portion of the Energy Bureau's Resolution and Order Entered on August 20, 2021, and Submitting Updated List of Transmission and Distribution Projects and Twenty-Nine Scope of Work* ("August 30th Motion"). In the August 30<sup>th</sup> Motion, LUMA submitted twenty-nine (29) SOWs for T&D Projects for the Energy Bureau's review and approval prior to submitting them to COR3 and FEMA. The SOWs submitted by LUMA included the "FAASt [Distribution Streetlighting - Gurabo] (Distribution)", "FAASt Aguadilla Streetlight (Distribution)," "FAASt Distribution Streetlighting - Trujillo Alto (Distribution)"<sup>3</sup>, "FAASt [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)", and "FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)"<sup>4</sup> T&D Projects.

3. On September 22, 2021, the Energy Bureau issued a Resolution and Order where it determined that most of the SOWs for T&D projects submitted by LUMA were necessary to improve the system's reliability ("September 22nd Order"). Therefore, it approved most of the projects presented in the August 30<sup>th</sup> Motion, including the "FAASt [Distribution Streetlighting - Gurabo] (Distribution)", "FAASt Aguadilla Streetlight (Distribution)", "FAASt Distribution

---

<sup>3</sup> These T&D Projects were submitted initially to the Energy Bureau as the "Distribution Streetlighting," which encompassed streetlighting replacement projects throughout Puerto Rico but were later divided into individual projects per municipality.

<sup>4</sup> The "FAASt [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)" and "FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)" T&D Projects were submitted initially to the Energy Bureau as the "Distribution Pole and Conductor Replacement," which encompassed pole and conductor replacement projects throughout Puerto Rico but were later divided into individual projects per region.

Streetlighting - Trujillo Alto (Distribution)”, “FAAST [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)”, and “FAAST [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)” T&D Projects SOWs. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the Projects, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

4. In compliance with the September 22<sup>nd</sup> and October 18<sup>th</sup> Orders, LUMA hereby submits copies of approvals by FEMA of the Projects issued on May 16, 2023.<sup>5</sup> *See Exhibit 1* to this Motion. The document contains FEMA’s approvals and includes the cost obligated for each Project.

5. LUMA is submitting herein a redacted public version of the FEMA approvals (**Exhibit 1**) protecting confidential information associated with Critical Energy Infrastructure Information (“CEII”). The FEMA approvals of the “FAAST [Distribution Streetlighting - Gurabo] (Distribution)”, “FAAST Aguadilla Streetlight (Distribution)”, “FAAST Distribution Streetlighting - Trujillo Alto (Distribution)”, “FAAST [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)”, and “FAAST [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)” T&D Projects are protected from disclosure as CEII, *see, e.g.*, 6 U.S.C. §§ 671-674; 18 C.F.R. §388.113 (2020), and pursuant to the Bureau’s Policy on Management of Confidential Information. *See* Energy Bureau’s Policy on Management of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, as amended by Resolution dated September 20, 2016.

---

<sup>5</sup> It is important to note that LUMA acquires knowledge of any FEMA approval for a T&D Project once FEMA makes the information available via its grant portal.

## **II. Memorandum of Law in Support of Request for Confidentiality**

### **A. Applicable Laws and Regulations to Submit Information Confidentially Before the Energy Bureau**

6. The bedrock provision on the management of confidential information filed before this Energy Bureau, is Section 6.15 of Act 57-2014, known as the “Puerto Rico Energy Transformation and Relief Act”. It provides, in pertinent part, that: “[i]f any person who is required to submit information to the [Energy Bureau] believes that the information to be submitted has any confidentiality privilege, such person may request the [Energy Bureau] to treat such information as such [...]” 22 LPRA §1054n. If the Energy Bureau determines, after appropriate evaluation, that the information should be protected, “it shall grant such protection in a manner that least affects the public interest, transparency, and the rights of the parties involved in the administrative procedure in which the allegedly confidential document is submitted.” *Id.* §1054n(a).

7. Access to confidential information shall be provided “only to the lawyers and external consultants involved in the administrative process after the execution of a confidentiality agreement.” *Id.* §1054n(b). Finally, Act 57-2014 provides that this Energy Bureau “shall keep the documents submitted for its consideration out of public reach only in exceptional cases. In these cases, the information shall be duly safeguarded and delivered exclusively to the personnel of the [Energy Bureau] who needs to know such information under nondisclosure agreements. However, the [Energy Bureau] shall direct that a non-confidential copy be furnished for public review.” *Id.* §1054n(c).

8. Relatedly, in connection with the duties of electric power service companies, Section 1.10 (i) of Act 17-2019 provides that electric power service companies shall provide the

information requested by customers, except for confidential information in accordance with the Rules of Evidence of Puerto Rico.

9. Moreover, the Energy Bureau's Policy on Management of Confidential Information details the procedures a party should follow to request that a document or portion thereof be afforded confidential treatment. In essence, the referenced Policy requires identifying confidential information and filing a memorandum of law explaining the legal basis and support for a request to file information confidentially. *See* CEPR-MI-2016-0009, Section A, as amended by the Resolution of September 20, 2016, CEPR-MI-2016-0009. The memorandum should also include a table that identifies the confidential information, a summary of the legal basis for the confidential designation, and why each claim or designation conforms to the applicable legal basis of confidentiality. *Id.* at ¶ 3. The party who seeks confidential treatment of information filed with the Energy Bureau must also file both a "redacted" or "public version" and an "unredacted" or "confidential" version of the document that contains confidential information. *Id.* at ¶ 6.

10. The Energy Bureau's Policy on Management of Confidential Information states the following with regard to access to validated Trade Secret Information and CEII:

1. Trade Secret Information  
Any document designated by the [Energy Bureau] as Validated Confidential Information because it is a trade secret under Act 80-2011 may only be accessed by the Producing Party and the [Energy Bureau], unless otherwise set forth by the [Energy Bureau] or any competent court.
2. Critical Energy Infrastructure Information ("CEII")  
The information designated by the [Energy Bureau] as Validated Confidential Information on the grounds of being CEII may be accessed by the parties' authorized representatives only after they have executed and delivered the Nondisclosure Agreement.

Those authorized representatives who have signed the Non-Disclosure Agreement may only review the documents validated as CEII at the [Energy Bureau] or the Producing Party's offices. During the review, the authorized representatives may not copy or disseminate the reviewed information and may bring no recording device to the viewing room.

*Id.* at § D (on Access to Validated Confidential Information).

11. Regulation No. 8543, *Regulation on Adjudicative, Notice of Noncompliance, Rate Review, and Investigation Proceedings*, also includes a provision for filing confidential information in proceedings before this Energy Bureau. To wit, Section 1.15 provides that “a person has the duty to disclose information to the [Energy Bureau] considered to be privileged pursuant to the Rules of Evidence, said person shall identify the allegedly privileged information, request the [Energy Bureau] the protection of said information, and provide supportive arguments, in writing, for a claim of information of privileged nature. The [Energy Bureau] shall evaluate the petition and, if it understands [that] the material merits protection, proceed according to [...] Article 6.15 of Act No. 57-2015, as amended.” *See also* Energy Bureau Regulation No. 9137 on *Performance Incentive Mechanisms*, § 1.13 (addressing disclosure before the Energy Bureau of Confidential Information and directing compliance with Resolution CEPR-MI-2016-0009).

#### **B. Request for Confidentiality**

12. The FEMA approvals with CEII included in **Exhibit 1** contain portions of CEII that, under relevant federal law and regulations, are protected from public disclosure. LUMA stresses that the FEMA approvals with CEII warrant confidential treatment to protect critical infrastructure from threats that could undermine the system and negatively affect electric power services to the detriment of the interests of the public, customers, and citizens of Puerto Rico. In several proceedings, this Energy Bureau has considered and granted requests by PREPA to submit

CEII under seal of confidentiality.<sup>6</sup> In at least two proceedings on Data Security,<sup>7</sup> and Physical Security,<sup>8</sup> this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

13. Additionally, this Energy Bureau has granted requests by LUMA to protect CEII in connection with LUMA's System Operation Principles. *See* Resolution and Order of May 3, 2021, table 2 on page 4, Case No. NEPR-MI-2021-0001 (granting protection to CEII included in LUMA's Responses to Requests for Information). Similarly, in the proceedings on LUMA's proposed Initial Budgets and System Remediation Plan, this Energy Bureau granted confidential designation to several portions of LUMA's Initial Budgets and Responses to Requests for Information. *See* Resolution and Order of April 22, 2021, on Initial Budgets, table 2 on pages 3-4, and Resolution and Order of April 22, 2021, on Responses to Requests for Information, table 2 on pages 8-10, Case No. NEPR-MI-2021-0004; Resolution and Order of April 23, 2021, on Confidential Designation of Portions of LUMA's System Remediation Plan, table 2 on page 5, and Resolution and Order of May 6, 2021, on Confidential Designation of Portions of LUMA's

---

<sup>6</sup> *See e.g., In re Review of LUMA's System Operation Principles*, NEPR-MI-2021-0001 (Resolution and Order of May 3, 2021); *In re Review of the Puerto Rico Power Authority's System Remediation Plan*, NEPR-MI-2020-0019 (order of April 23, 2021); *In re Review of LUMA's Initial Budgets*, NEPR-MI-2021-0004 (order of April 21, 2021); *In re Implementation of Puerto Rico Electric Power Authority Integrated Resource Plan and Modified Action Plan*, NEPR MI 2020-0012 (Resolution of January 7, 2021, granting partial confidential designation of information submitted by PREPA as CEII); *In re Optimization Proceeding of Minigrid Transmission and Distribution Investments*, NEPR-MI 2020-0016 (where PREPA filed documents under seal of confidentiality invoking, among others, that a filing included confidential information and CEII); *In re Review of the Puerto Rico Electric Power Authority Integrated Resource Plan*, CEPR-AP-2018-0001 (Resolution and Order of July 3, 2019 granting confidential designated and request made by PREPA that included trade secrets and CEII. However, *see* Resolution and Order of February 12, 2021, reversing in part, grant of confidential designation).

<sup>7</sup> *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

<sup>8</sup> *In re Review of the Puerto Rico Electric Power Authority Physical Security Plan*, NEPR-MI-2020-0018.

Responses to Requests for Information on System Remediation Plan, table 2 at pages 7-9, Case No. NEPR-MI-2020-0019.

14. As mentioned above, the Energy Bureau's Policy on Management of Confidential Information provides for the management of CEII. It directs that the parties' authorized representatives access information validated as CEII only after executing and delivering a Non-Disclosure Agreement.

15. Generally, CEII or critical infrastructure information is exempted from public disclosure because it involves assets and information which pose public security, economic, health, and safety risks. Federal Regulations on CEII, particularly, 18 C.F.R. § 388.113, state that:

Critical energy infrastructure information means specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that:

- (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
- (ii) Could be useful to a person in planning an attack on critical infrastructure;
- (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
- (iv) Does not simply give the general location of the critical infrastructure.

*Id.*

16. Additionally, "[c]ritical electric infrastructure means a system or asset of the bulk-power system, whether physical or virtual, the incapacity or destruction of which would negatively affect national security, economic security, public health or safety, or any combination of such matters. *Id.* Finally, "[c]ritical infrastructure means existing and proposed systems and assets, whether physical or virtual, the incapacity or destruction of which would negatively affect security, economic security, public health or safety, or any combination of those matters." *Id.*



17. The Critical Infrastructure Information Act of 2002, 6 U.S.C. §§ 671-674 (2020), part of the Homeland Security Act of 2002, protects critical infrastructure information (“CII”).<sup>9</sup> CII is defined as “information not customarily in the public domain and related to the security of critical infrastructure or protected systems [...]” 6 U.S.C. § 671 (3).<sup>10</sup>

---

<sup>9</sup> Regarding protection of voluntary disclosures of critical infrastructure information, 6 U.S.C. § 673, provides in pertinent part, that CII:

- (A) shall be exempt from disclosure under the Freedom of Information Act;
- (B) shall not be subject to any agency rules or judicial doctrine regarding ex parte communications with a decision-making official;
- (C) shall not, without the written consent of the person or entity submitting such information, be used directly by such agency, any other Federal, State, or local authority, or any third party, in any civil action arising under Federal or State law if such information is submitted in good faith;
- (D) shall not, without the written consent of the person or entity submitting such information, be used or disclosed by any officer or employee of the United States for purposes other than the purposes of this part, except—
  - (i) in furtherance of an investigation or the prosecution of a criminal act; or
  - (ii) when disclosure of the information would be--
    - (I) to either House of Congress, or to the extent of matter within its jurisdiction, any committee or subcommittee thereof, any joint committee thereof or subcommittee of any such joint committee; or
    - (II) to the Comptroller General, or any authorized representative of the Comptroller General, in the course of the performance of the duties of the Government Accountability Office
- (E) shall not, be provided to a State or local government or government agency; of information or records;
  - (i) be made available pursuant to any State or local law requiring disclosure of information or records;
  - (ii) otherwise be disclosed or distributed to any party by said State or local government or government agency without the written consent of the person or entity submitting such information; or
  - (iii) be used other than for the purpose of protecting critical Infrastructure or protected systems, or in furtherance of an investigation or the prosecution of a criminal act.
- (F) does not constitute a waiver of any applicable privilege or protection provided under law, such as trade secret protection.

<sup>10</sup> CII includes the following types of information:

- (A) actual, potential, or threatened interference with, attack on, compromise of, or incapacitation of critical infrastructure or protected systems by either physical or computer-based attack or other similar conduct (including the misuse of or unauthorized access to all types of communications and data transmission systems) that violates Federal, State, or local law, harms interstate commerce of the United States, or threatens public health or safety;

18. The FEMA approvals with CEII in **Exhibit 1** qualify as CEII because each of these documents contains the express coordinates to power transmission and distribution facilities (18 C.F.R. § 388.113(iv)), and these specific coordinates could potentially be helpful to a person planning an attack on the energy facilities listed as part of these FEMA approvals. The information identified as confidential in this paragraph is not common knowledge and is not made publicly available. Therefore, it is respectfully submitted that, on balance, the public interest in protecting CEII weighs in favor of protecting the relevant portions of the FEMA approvals with CEII in **Exhibit 1** from disclosure, given the nature and scope of the details included in those portions of the Exhibit.

19. Based on the above, LUMA respectfully submits that the FEMA approvals with CEII should be designated as CEII. This designation is a reasonable and necessary measure to protect the specific location of the energy facilities listed or discussed in these FEMA approvals in **Exhibit 1**. Given the importance of ensuring the safe and efficient operation of the generation assets and the T&D System, LUMA respectfully submits that these materials constitute CEII that should be maintained confidentially to safeguard their integrity and protect them from external threats.

---

(B) the ability of any critical infrastructure or protected system to resist such interference, compromise, or incapacitation, including any planned or past assessment, projection, or estimate of the vulnerability of critical infrastructure or a protected system, including security testing, risk evaluation thereto, risk management planning, or risk audit; or  
(C) any planned or past operational problem or solution regarding critical infrastructure or protected systems, including repair, recovery, construction, insurance, or continuity, to the extent it is related to such interference, compromise, or incapacitation.

### C. Identification of Confidential Information

20. In compliance with the Energy Bureau's Policy on Management of Confidential Information (CEPR-MI-2016-0009) below, find a table summarizing the portions of those FEMA approvals for which we present this request for confidential treatment.

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt [Distribution Streetlighting - Gurabo] (Distribution)	Pages 1, 5 and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 24, 2023
Exhibit 1	FAASt Aguadilla Streetlight (Distribution)	Pages 1, 5 and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 24, 2023
Exhibit 1	FAASt Distribution Streetlighting - Trujillo Alto (Distribution)	Pages 1, 4 and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 24, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)	Pages 1, 2, 7, and 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 24, 2023

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)	Pages 1, 2, 7, and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	May 24, 2023

**WHEREFORE**, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned; **accept** the copies of the FEMA approvals attached herein as **Exhibit 1**; and **grant** the request for confidential treatment of **Exhibit 1**.

**RESPECTFULLY SUBMITTED.**

We hereby certify that we filed this motion using the electronic filing system of this Energy Bureau. We will send an electronic copy of this motion to the attorney for PREPA, Joannely Marrero-Cruz, [jmarrero@diazvaz.law](mailto:jmarrero@diazvaz.law).

In San Juan, Puerto Rico, on this 24<sup>th</sup> day of May 2023.



**DLA Piper (Puerto Rico) LLC**  
500 Calle de la Tanca, Suite 401  
San Juan, PR 00901-1969  
Tel. 787-945-9132  
Fax 939-697-6102

*/s/ Yahaira De la Rosa Algarín*  
Yahaira De la Rosa Algarín  
RUA NÚM. 18,061  
[yahaira.delarosa@us.dlapiper.com](mailto:yahaira.delarosa@us.dlapiper.com)

*Exhibit 1*

*FEMA Approvals*

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	673504	<b>PW #</b>	11317	<b>Project Type</b>	Specialized
<b>Project Category</b>	F - Utilities	<b>Applicant</b>	PR Electric Power Authority (000-UA2QU-00)		
<b>Project Title</b>	FAAST [Distribution Streetlighting - Gurabo] (Distribution)			<b>Event</b>	4339DR-PR (4339DR)
<b>Project Size</b>	Large	<b>Declaration Date</b>	9/20/2017		
<b>Activity Completion Date</b>	9/20/2027	<b>Incident Start Date</b>	9/17/2017		
<b>Process Step</b>	Obligated	<b>Incident End Date</b>	11/15/2017		

### Damage Description and Dimensions

The Disaster # 4339DR, which occurred between **09/17/2017** and **11/15/2017**, caused:

#### Damage #1230883; FAASt [Distribution Streetlighting - Gurabo]

DDD for this facility codified in the 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Streetlighting - Gurabo
- **Facility Description:** Additional descriptions of typical components of a streetlight system are described below:
  - Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities
  - Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting
  - Luminaire/Light Bulb – The light emitting part of a streetlight
  - Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode
  - Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system
  - Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed
- **Approx. Year Built:** 1967
- **GPS Latitude/Longitude:** [REDACTED]

#### General Damage Information:

- **Date Damaged:** 9/20/2017
- **Cause of Damage:** High winds & wind driven rain, caused by Cat 4 Hurricane Maria

### Final Scope

**1230883** **FAAST [Distribution Streetlighting - Gurabo]**

#### Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Distribution Streetlighting Gurabo project (Gurabo municipality) under DR-4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, replace, and upgrade the eligible facilities in the municipality of Gurabo.

LUMA submits this Detailed SOW pursuant to the T&D O&M Agreement between Puerto Rico, Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A and provided herein as Appendix E which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA.

## Facilities

This project is part of the breakdown division for the Distribution Streetlighting Program which will be impacting each of the municipalities. Characteristics were previously defined to serve the municipality of Gurabo according to the priorities and findings after conducting the assessments.

<b>Physical Address</b>	Gurabo, Puerto Rico
<b>Coordinates</b>	Please refer to Appendix F for Coordinates

### Project Scope of Work

#### Streetlight Repairs:

#### Proposed 428 Public Assistance Scope of Work:

##### Lighting Components Replacement

A. Remove existing lighting components, including photo controls, luminaires, arms, and associated hardware, and install new lighting components in the same location. No ground disturbance will be required as part of this scope of work.

B. Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.

All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

##### Pole Replacement

A. Remove existing streetlight poles, including lighting components and install new streetlight poles, including lighting components, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet. All pole installations are to replace existing poles locations; no new locations are included in this scope of work. Refer to Appendix K column D (Soil area and depth impact) for the depths of the poles to be installed.

B. Remove the existing foundations as specified in Appendix G- Cost Estimate and replace them with a new concrete foundation in the same location. Refer to Appendix J for design criteria.<sup>1</sup>

C. Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.

Poles are in close proximity to the roads and are site accessible. The construction of access roads is not required for this scope of work. (Refer to Appendix K in "Site Accessible" column)

All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3.

This scope of work will not affect water or sewer utility services.

**Trenching/Underground (Replacing Underground Circuit)**

A. Remove existing trenching and install new trenching within our existing 5’ electrical Right of Way as specified in Appendix K. The trench’s dimensions are described by LUMA Trench Standard STL-16 (Appendix I), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and follow a straight line between the streetlight pole and its power connection. This activity does not require any vegetation clearance and/or access clearance.

Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3.

This scope of work will not affect water or sewer utility services.

**Material Disposal**

Photocells are considered hazardous waste and will be disposed of by the contractor in approved facilities in compliance with applicable federal and local laws and regulations. Material amounts will be provided by a certified management contractor performing a site evaluation calculation for asbestos, lead paint, roof material.

No transformer will be removed or disposed of during the Program.

The type of debris that may be found in the process of removal are luminaires, pole arms, photocells, metal scrap, wiring, concrete, steel, and wood poles, etc. The debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local laws and regulations.

**Staging Area**

All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Caguas Warehouse, 18°15'24.1"N 66°01'47.8"W. Refer to Appendix M for Warehouse location.

**Specific List of Permits Required:**

DTOP Endorsements & Municipality Notifications.

Excavation and Demolition Notification in Department of Transportation and Public Works Agency - (DTOP).

LUMA will provide proof of all permits as a Condition of FEMA Record of Environmental Considerations.

**Fill, gravel, sand, etc.:**

Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in Appendix A Preferred Vendors list.

**List of Equipment to be used:**

Skid Steer, Excavator, Dump trucks, Manlifts, 120-Ton Motor Crane, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine and Flatbed platform.

**Proposed 406 Hazard Mitigation Grant Program Scope of Work:**

Increase the design standard of streetlight components to exceed FEMA consensus-based codes and standards as specified in below table:

Material Item	Consensus-based codes and standards	Hazard Mitigation Design	Justification/ Benefit
---------------	-------------------------------------	--------------------------	------------------------



Octagonal concrete poles	<ul style="list-style-type: none"> <li>•33ft high and installed to a depth of 5ft</li> <li>•Wind resistance 90mph</li> </ul>	<ul style="list-style-type: none"> <li>•39ft high and installed to a depth of 9ft</li> <li>•Wind resistance 160mph</li> </ul>	Increasing pole strength to withstand extreme weather events and avoid pole tilting.
Aluminum poles	<ul style="list-style-type: none"> <li>•30ft high</li> <li>•Wind resistance 90mph</li> </ul>	<ul style="list-style-type: none"> <li>•40ft high</li> <li>•Wind resistance 160mph</li> </ul>	Increasing pole strength to withstand extreme weather events.
Wood/Steel Secondary poles	Secondary wood poles and 35ft steel poles (35ft Galv.@52 kips-ft)	Secondary 40ft steel poles (Galv.@60 kips-ft)	Increasing pole ultimate force to withstand extreme weather events.
Breakaway base	90mph	160mph	Increasing base strength to withstand extreme weather events.
Concrete precast base	5ft-6in long and 2ft diameter	10ft long and 3ft diameter	Increasing the installation depth to improve the resistance to pole tilting during extreme weather events.
Pole-arms (all types)	90mph	160mph	Increasing pole-arm strength to withstand extreme weather events.

Refer to Appendix G for the location-specific 406 Hazard Mitigation scopes of work.

## Project Estimate

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the below table. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has identified risks and allowances (10% of project cost) for the mitigation of potential known risks.

Project Cost Estimate	428 Estimate
Planning, Permits and Applications (FAASt 335168)	\$116,942
Environmental Management (FAASt 335168)	\$556,982
Project Management (FAASt 335168)	\$821,908
Engineering (FAASt 335168)	\$1,547,844
Construction	\$17,753,212
Contingency	\$1,455,782
<b>SUBTOTAL</b>	<b>\$22,252,670</b>
<b>428 FAASt Project 673504</b>	<b>\$19,208,994</b>
<b>FAASt Project A&amp;E 335168</b>	<b>\$3,043,676</b>

Please refer to Appendix G for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$22,252,670  
428 A&E Deduction (Global A&E FAASt 335168) -\$3,043,676  
428 Project Total Cost: \$22,252,670 - \$3,043,676 = \$19,208,994

For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Gurabo Municipality.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 673504-FEMA Detailed SOW-Streetlight- Gurabo.pdf
2. For reference documents Appendix A thru M, see file documents tab
3. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.
4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335168 - FAASt A&E PREPA).

## 406 HMP Scope

**Project number:** 673504; FAASt [Distribution Streetlight - Gurabo] (Distribution)

**Damage # 1230883; FAASt Distribution Streetlighting - Gurabo (Distribution)**

**Applicant:** PR Electric Power Authority (000-UA2QU-00)

**Location:** Gurabo, Puerto Rico

**GPS Latitude/Longitude:** [REDACTED]

### Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding and power outage from Hurricane Maria. The incident caused damage to the electrical system, such as the power generation plants, transmission and distribution lines, substations, communication systems, buildings, among other damages to the infrastructures owned, operated, and maintained by the Puerto Rico Electric Power Authority (PREPA).

In the Gurabo Municipality, PREPA has a total of 4,183 ea streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. Note: The FEMA Accelerated Award Strategy (FAASt) MOR included the PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The 160mph wind tolerance mitigation measure, will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards.

### Hazard Mitigation Proposal (HMP) Scope of Work:

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

#### Mitigation Measures (Replacement)

1. To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. The FAASt MOR used PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J: Section VI.D.1 of the PAPPG V3.1.

#### 406 Mitigation Scope of Work:

- Replace (2,610 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.

- Replace (82 ea.) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (209 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (12 ea.) 8ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (11 ea.) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (24 ea.) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (109 ea.) 33ft octagonal concrete poles by (109 ea.) 39ft octagonal concrete poles.
- Replace (913 ea.) 35ft galvanized poles by (913 ea.) 35ft S3.5 galvanized poles.
- Replace (18 ea.) 30ft aluminum poles by (18 ea.) 40ft aluminum poles.
- Replace (18 ea.) 30ft aluminum poles breakaway bases by (18 ea.) 40ft aluminum poles breakaway bases.
- Replace (18 ea.) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (18 ea.) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

#### **Hazard Mitigation Proposal (HMP) Cost:**

Total Net Hazard Mitigation Cost (Base Cost) =	\$1,132,656.00
+ HM (Applicant A&E, Management & General Conditions) =	\$ 400,644.00
Hazard Mitigation Total Cost =	<b>\$1,533,300.00</b>

#### **HMP Cost-Effectiveness Calculations:**

FEMA's Benefit-Cost Analysis (BCA), methodology evaluates expected risk reduction benefits of a hazard mitigation project and compares those benefits to the cost of the mitigation project. FEMA Public Assistance Program and Policy Guide (PAPPG) Chapter 2. Section VII. C. defines cost effective mitigation as: The Hazard Mitigation Measure is cost effective through an acceptable Benefit Cost Analysis (BCA) with a resulting Benefit Cost Ratio equal to or greater than (1).

The Island Wide Benefit Cost Analysis (IWBCA) created for the PREPA infrastructure defines a maximum potential benefit using the incurred costs of the PREPA FEMA Accelerated Award Strategy (FAAST) fixed cost estimate, the mission assignments utilized for the reconnection effort, and the costs associated with loss of service. This maximum benefit has been developed to fund all mitigation projects from both Public Assistance Hazard Mitigation and the Hazard Mitigation Grant program.

It is the applicant's responsibility to maintain a record of approved IWBCA related projects to avoid running out of funds for their Mitigation portion projects.".  
Please see attached IWBCA Package

The cost of the Hazard Mitigation Proposal (HMP) described herein is \$1,533,300.00 (Hazard Mitigation Total Cost). The cost of this HMP combined with all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

**\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (HMP, HMP cost estimate, Supporting documents file).**

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 ( 3510 ( ((3510 (Engineering And Design Services (Global A&E FAAS 335168)))) ) )	1.00	Lump Sum	(\$3,043,676.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 ( 9001 (((9001 (Contract (FAAS 673504))))))	1.00	Lump Sum	\$22,252,670.00	Uncompleted

CRC Gross Cost \$19,208,994.00

Total 406 HMP Cost \$1,533,300.00

Total Insurance Reductions \$0.00

---

CRC Net Cost \$20,742,294.00

Federal Share (90.00%) \$18,668,064.60

Non-Federal Share (10.00%) \$2,074,229.40

## Award Information

### Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11317(13690)	\$20,742,294.00	90 %	\$18,668,064.60	5/16/2023

### Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

### Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
-----------	----------------	----------------	------------	--------------	--------------------

## Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

## Insurance

### Additional Information

**3/22/2023**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 673504

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

Incident Period: 9/17/2017 to 11/15/2017

Total Public Assistance Amount: \$20,742,294.00 (CRC Gross Cost \$19,208,994.00 + Mitigation Amount \$1,533,300.00)

**COMMERCIAL INSURANCE INFORMATION**

Does the applicant have a Commercial Policy that extends coverage for this facility: Yes

Policies Issued by: Willis Towers Watson, Multinational Insurance Company and Mapfre

Policy Numbers: Willis Towers Watson (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP000318674-0, 88-CP-000318675-0, 88-CP-000318676-0, 88-CP-000318677-0)

Policy Period: From: 5/15/2017 To: 5/15/2018

Policy Limits: \$300,000,000.00

RCV or ACV: Replacement Cost Value

Deductible Amount \$25,000,000.00 each and every occurrence property damage and 30 days each and every occurrence business interruption in respect of Named Windstorm.

Does the Applicant's Commercial Policy extend coverage for the damage described in this project: No

**NUMBER OF DAMAGED LOCATIONS INCLUDED IN THIS PROJECT: (1)**

**Damaged Inventory (DI) #1230883:**

**FAASt [Distribution Streetlighting - Gurabo]**

Location: Streetlighting - Gurabo

GPS Coordinates: [REDACTED]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$20,742,294.00 (CRC Gross Cost \$19,208,994.00 + Mitigation Amount \$1,533,300.00)

-

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

-

Reduction(s):

No insurance reduction will be applied to this project as coverage is not anticipated. An anticipated insurance reduction of \$193,746,436.00 was applied to FAAST project # 136271 for anticipated insurance proceeds for Hurricane Maria losses. For ease of reference, please see table of insurance allocations: "PREPA Allocation Plan – All Disasters" file.

-

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAAST [Distribution Streetlighting - Gurabo] because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

FEMA acknowledges that the Applicant is in negotiations with their insurance carrier at the time of the FEMA insurance review and might have received partial settlements. In accordance with 44 CFR §206.250-253, in the absence of an actual settlement, anticipated insurance recoveries will be deducted from this project based on Applicant's insurance policy limits. FEMA subsequently adjusts the eligible costs based on the actual amount of insurance proceeds the Applicant receives after a final settlement.

FEMA's Recovery Policy FP 206-086-1, Public Assistance Policy on Insurance (June 29, 2015), requires applicants to take reasonable efforts to recover insurance proceeds that it is entitled to receive from its insurers. FEMA will consider final insurance settlements that may be less than the insurance policy limits when an applicant demonstrates that it has taken reasonable efforts to recover insurance proceeds that it is entitled on a case-by-case basis.

Standard Insurance Comments

FEMA Policy 206-086-1

**PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)**

**A. Duplication of Benefits.** FEMA cannot provide assistance for disaster-related losses that duplicate benefits available to an applicant from another source, including insurance.

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.
2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.
3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

**Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR**

**O&M Requirements**



There are no Obtain and Maintain Requirements on **FAASt**  
**[Distribution Streetlighting - Gurabo] (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAASt**  
**[Distribution Streetlighting - Gurabo] (Distribution)**.

## Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

### EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Damage#1230883. Applicant must obtain any required permits from the Planning Board prior to initiating work and comply with any conditions of the permit. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa apply for damage#1230883 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or

shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, [marelisa\\_rivera@fws.gov](mailto:marelisa_rivera@fws.gov).

- Endangered Species Act (ESA) - The below conservation measures apply damage#1230883 to the following species: Puerto Rican parrot, Puerto Rican plain pigeon and Puerto Rican broad-winged hawk. 8. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (*Amazona vittata*): February to June; Puerto Rican plain pigeon (*Patagioenas inornata wetmorei* [*Columba inornata*]): April-September and Puerto Rican broad-winged hawk (*Buteo platypterus*): December-June. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. Data should also include a photo of the nest and eggs, relocation site GPS coordinates, and the time and date of the relocation. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 206, 787-510-5207, [marelisa\\_rivera@fws.gov](mailto:marelisa_rivera@fws.gov).
- Endangered Species Act (ESA) - Damage#1230883 Conservation Measures to be implemented for a coquí guajón. a. Inform all project personnel about the potential presence of the coquí guajón in areas where the proposed work will be conducted. A pre-construction meeting shall be conducted to inform all project personnel about the requirement of avoiding harm to the species. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. b. Project boundaries, buffer zones and areas to be excluded or protected shall be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. c. Erosion and Sedimentation Control Best Management Practices (BMP's) shall be included in the project scope of work when working within or adjacent to the coquí guajón habitat (e.g. rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species' habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. d. All project associated with streams, rivers, bridges, culverts, etc., shall follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane María. The guide is available at: <https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf>
- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be

disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds. 1.

- NEPA Determination - 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material.

## EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Distribution Streetlighting - Gurabo] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** MARTINEZ SANTIAGO, ISRAEL

**Reviewed On** 04/14/2023 8:24 AM PDT

#### Review Comments

FEMA Final Review completed. Project ready for Recipient Review.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 04/14/2023 2:00 PM PDT

#### Review Comments

Recipient review completed. Project is ready for applicant review.

## Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$20,742,294.00 for subaward number 11317 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

The Applicant understands that by participating in this pilot program they will be reimbursed for allowable costs in

accordance with 2 CFR Part 200, and the reimbursement will not exceed the Fixed Cost Offer. The Applicant also understands that by agreeing to this Fixed Cost Offer, they will not receive additional funding related to the facilities or sites included in the subaward. The Applicant also acknowledges that failure to comply with the requirements of applicable laws and regulations governing assistance provided by FEMA and the PA Alternative Procedures Pilot Program Guidance (such as procurement and contracting; environmental and historic preservation compliance; and audit and financial accountability) may lead to loss of federal funding.

**Project Signatures**

Signed By

Miller, Thomas

Signed On

04/19/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	690545	<b>PW #</b>	11319	<b>Project Type</b>	Specialized	
<b>Project Category</b>	F - Utilities	<b>Applicant</b>	PR Electric Power Authority (000-UA2QU-00)			
<b>Project Title</b>	FAASt Aguadilla Streetlight (Distribution)				<b>Event</b>	4339DR-PR (4339DR)
<b>Project Size</b>	Large	<b>Declaration Date</b>	9/20/2017			
<b>Activity</b>	9/20/2027	<b>Incident Start Date</b>	9/17/2017			
<b>Completion Date</b>		<b>Incident End Date</b>	11/15/2017			
<b>Process Step</b>	Obligated					

### Damage Description and Dimensions

The Disaster # 4339DR, which occurred between **09/17/2017** and **11/15/2017**, caused:

#### Damage #1261509; FAASt Aguadilla Streetlight (Distribution)

DDD for this facility codified in the 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Aguadilla Distribution Streetlighting
- **Facility Description:** The Aguadilla municipality has a total of 9443 luminaires of which damage was estimated for 70% of these luminaires.
  - Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities
  - Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting
  - Luminaire/Light Bulb – The light emitting part of a streetlight
  - Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode
  - Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system
  - Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** [REDACTED]

#### General Damage Information:

- **Date Damaged:** 9/20/2017
- **Cause of Damage:** High winds & wind driven rain, caused by Cat 4 Hurricane Maria

### Final Scope

**1261509** **FAASt Aguadilla Streetlight (Distribution)**

#### Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Distribution Streetlighting Aguadilla Phase 1 High Priority project (Aguadilla municipality) under DR-4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, replace, and upgrade the eligible facilities in the municipality of Aguadilla.

LUMA submits this Detailed SOW pursuant to the T&D O&M Agreement between Puerto Rico, Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A and provided herein as Appendix E which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA.

## Facilities

This project is part of the breakdown division for the Distribution Streetlighting Program which will be impacting each of the municipalities. Characteristics were previously defined to serve the municipality of Aguadilla according to the priorities and findings after conducting the assessments.

<b>Physical Address</b>	Aguadilla, Puerto Rico
<b>Coordinates</b>	Please refer to Appendix F for Coordinates

## Project Scope of Work

### Streetlight Repairs:

### Proposed 428 Public Assistance Scope of Work:

#### Lighting Components Replacement

A. Remove existing lighting components, including photo controls, luminaires, arms, and associated hardware, and install new lighting components in the same location. No ground disturbance will be required as part of this scope of work.

Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.

All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

#### Pole Replacement

B. Remove existing streetlight poles, including lighting components and install new streetlight poles, including lighting components, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet. All pole installations are to replace existing poles locations; no new locations are included in this scope of work. Refer to Appendix K column D (Soil area and depth impact) for the depths of the poles to be installed.

C. Remove the existing foundations as specified in Appendix G- Cost Estimate and replace them with a new concrete foundation in the same location. Refer to Appendix J for design criteria.1

Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.

Poles are in close proximity to the roads and are site accessible. The construction of access roads is not required for this scope of work. (Refer to Appendix K in "Site Accessible" column)

All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3.

This scope of work will not affect water or sewer utility services.

#### Trenching/Underground (Replacing Underground Circuit)

D. Remove existing trenching and install new trenching within our existing 5' electrical Right of Way as specified in Appendix K. The trench's dimensions are described by LUMA Trench Standard STL-16 (Appendix I), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and follow a straight line between the streetlight pole and its power connection. This activity does not require any vegetation clearance and/or access clearance.

Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3.

This scope of work will not affect water or sewer utility services.

#### Material Disposal

- Photocells are considered hazardous waste and will be disposed of by the contractor in approved facilities in compliance with applicable federal and local laws and regulations. Material amounts will be provided by a certified management contractor performing a site evaluation calculation for asbestos, lead paint, roof material.
- No transformer will be removed or disposed of during the Program.
- The type of debris that may be found in the process of removal are luminaires, pole arms, photocells, metal scrap, wiring, concrete, steel, and wood poles, etc. The debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local laws and regulations.

#### Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Arecibo Warehouse, 18°14'36.3"N 67°09'33.7"W. Refer to Appendix M for Warehouse location.

#### Specific List of Permits Required:

- DTOP Endorsements & Municipality Notifications.
- Excavation and Demolition Notification in Department of Transportation and Public Works Agency - (DTOP).
- LUMA will provide proof of all permits as a Condition of FEMA Record of Environmental Considerations.

#### Fill, gravel, sand, etc.:

- Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in Appendix A Preferred Vendors list.

List of Equipment to be used:

- Skid Steer, Excavator, Dump trucks, Manlifts, 120-Ton Motor Crane, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine and Flatbed platform.

## Project Estimate

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the below table. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has identified risks and allowances (10% of project cost) for the mitigation of potential known risks.

<b>Project Cost Estimate</b>	<b>428 Estimate</b>
Planning, Permits and Applications	\$118,283
Environmental Management	\$658,751
Project Management	\$847,409
Engineering	\$1,396,799
Construction	\$18,304,039
Contingency	\$1,492,770
<b>TOTAL</b>	<b>\$22,818,051</b>
<b>428 FAASSt Project 690545</b>	<b>\$19,796,809</b>
<b>FAASSt Project A&amp;E 335168</b>	<b>\$3,021,242</b>

Please refer to Appendix G for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$22,818,051**

**428 A&E Deduction (Global A&E FAASSt 335168) -\$3,021,242**

**428 Project Total Cost: \$19,796,809**

For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Aguadilla Municipality .xlsx

Project Notes:

1. Refer to detailed SOW provided in document FEMA Detailed Scope of Work Aguadilla Municipality Phase 1 High Priority - Signed.pdf
2. For reference documents Appendix A through M, see files labeled in Grants Portal.
3. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.



4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335158 - FAASt A&E PREPA).

406 HMP Scope

Project number: 690545; FAASt [Distribution Streetlighting - Aguadilla] (Distribution)

Damage #1261509; FAASt Distribution Streetlight Aguadilla

Applicant: PR Electric Power Authority (000-UA2QU-00)

Location: Aguadilla, Puerto Rico

GPS Latitude/Longitude: [REDACTED]

Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding and power outage from Hurricane Maria. The incident caused damage to the electrical system, such as the power generation plants, transmission and distribution lines, substations, communication systems, buildings, among other damages to the infrastructures owned, operated, and maintained by the Puerto Rico Electric Power Authority (PREPA).

In the Aguadilla Municipality, PREPA has a total of 2,560ea streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. Note: The FEMA Accelerated Award Strategy (FAASt) MOR included the PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The 160mph wind tolerance mitigation measure, will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards.

Hazard Mitigation Proposal (HMP) Scope of Work:

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

Mitigation Measures (Replacement)

- To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. The FAASt MOR used PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J. Section VI.D.1 of the PAPPG V3.1.

406 Mitigation Scope of Work:

- Replace (1,265ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (182ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (335ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (24ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.

- Replace (4ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (1ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (216ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (16ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (47ea) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (253ea) 33ft octagonal concrete poles by (253ea) 39ft octagonal concrete poles.
- Replace (666ea) 35ft galvanized poles by (666ea) 35ft S3.5 galvanized poles.
- Replace (33ea) 30ft aluminum poles by (33ea) 40ft aluminum poles.
- Replace (26ea) 30ft aluminum poles breakaway bases by (20ea) 40ft aluminum poles breakaway bases.
- Replace (33ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (33ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

**Hazard Mitigation Proposal (HMP) Cost:**

Total Net Hazard Mitigation Cost (Base Cost) = \$ 962,442. 00

+ HM (Applicant A&E, Management & General Conditions) = \$ 333,333.00

Hazard Mitigation Total Cost = \$ 1,295,775.00

**HMP Cost-Effectiveness Calculations:**

FEMA's Benefit-Cost Analysis (BCA), methodology evaluates expected risk reduction benefits of a hazard mitigation project and compares those benefits to the cost of the mitigation project. FEMA Public Assistance Program and Policy Guide (PAPPG) Chapter 2. Section VII. C. defines cost effective mitigation as: The Hazard Mitigation Measure is cost effective through an acceptable Benefit Cost Analysis (BCA) with a resulting Benefit Cost Ratio equal to or greater than (1).

The Island Wide Benefit Cost Analysis (IWBCA) created for the PREPA infrastructure defines a maximum potential benefit using the incurred costs of the PREPA FEMA Accelerated Award Strategy (FAAST) fixed cost estimate, the mission assignments utilized for the reconnection effort, and the costs associated with loss of service. This maximum benefit has been developed to fund all mitigation projects from both Public Assistance Hazard Mitigation and the Hazard Mitigation Grant program.

It is the applicant's responsibility to maintain a record of approved IWBCA related projects to avoid running out of funds for their Mitigation portion projects.". Please see attached IWBCA Package

The cost of the Hazard Mitigation Proposal (HMP) described herein is **\$1295,775.00 (Hazard Mitigation Total Cost)**. The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

**\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (HMP, HMP cost estimate, Supporting documents file).**

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (FAASt Project A&E 335168 (Version 0 )))	1.00	Lump Sum	(\$3,021,242.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (428 FAASt Project 136271 (Version 0)))	1.00	Lump Sum	\$22,818,051.00	Uncompleted

CRC Gross Cost \$19,796,809.00

Total 406 HMP Cost \$1,295,775.00

Total Insurance Reductions \$0.00

---

CRC Net Cost \$21,092,584.00

Federal Share (90.00%) \$18,983,325.60

Non-Federal Share (10.00%) \$2,109,258.40

## Award Information

### Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11319(13691)	\$21,092,584.00	90 %	\$18,983,325.60	5/16/2023

### Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

### Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
-----------	----------------	----------------	------------	--------------	--------------------

## Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

## Insurance

### Additional Information

**3/22/2023**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 690545

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

Incident Period: 9/17/2017 to 11/15/2017

Total Public Assistance Amount: \$21,092,584.00 (CRC Gross Cost \$19,796,809.00 + Mitigation Amount \$1,295,775.00)

**COMMERCIAL INSURANCE INFORMATION**

Does the applicant have a Commercial Policy that extends coverage for this facility: Yes

Policies Issued by: Willis Towers Watson, Multinational Insurance Company and Mapfre

Policy Numbers: Willis Towers Watson (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP000318674-0, 88-CP-000318675-0, 88-CP-000318676-0, 88-CP-000318677-0)

Policy Period: From: 5/15/2017 To: 5/15/2018

Policy Limits: \$300,000,000.00

RCV or ACV: Replacement Cost Value

Deductible Amount \$25,000,000.00 each and every occurrence property damage and 30 days each and every occurrence business interruption in respect of Named Windstorm.

Does the Applicant's Commercial Policy extend coverage for the damage described in this project: No

**NUMBER OF DAMAGED LOCATIONS INCLUDED IN THIS PROJECT: (1)**

**Damaged Inventory (DI) #1261509:**

**FAASt Aguadilla Streetlight (Distribution)**

Location: Aguadilla Distribution Streetlighting

GPS Coordinates: [REDACTED]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$21,092,584.00 (CRC Gross Cost \$19,796,809.00 + Mitigation Amount \$1,295,775.00)

-

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

-

Reduction(s):

No insurance reduction will be applied to this project as coverage is not anticipated. An anticipated insurance reduction of \$193,746,436.00 was applied to FFAST project # 136271 for anticipated insurance proceeds for Hurricane Maria losses. For ease of reference, please see table of insurance allocations: "PREPA Allocation Plan – All Disasters" file.\_

-

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FFAST Aguadilla Streetlight (Distribution) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

FEMA acknowledges that the Applicant is in negotiations with their insurance carrier at the time of the FEMA insurance review and might have received partial settlements. In accordance with 44 CFR §206.250-253, in the absence of an actual settlement, anticipated insurance recoveries will be deducted from this project based on Applicant's insurance policy limits. FEMA subsequently adjusts the eligible costs based on the actual amount of insurance proceeds the Applicant receives after a final settlement.

FEMA's Recovery Policy FP 206-086-1, Public Assistance Policy on Insurance (June 29, 2015), requires applicants to take reasonable efforts to recover insurance proceeds that it is entitled to receive from its insurers. FEMA will consider final insurance settlements that may be less than the insurance policy limits when an applicant demonstrates that it has taken reasonable efforts to recover insurance proceeds that it is entitled on a case-by-case basis.

Standard Insurance Comments

FEMA Policy 206-086-1

**PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)**

**A. Duplication of Benefits.** FEMA cannot provide assistance for disaster-related losses that duplicate benefits available to an applicant from another source, including insurance.

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.
2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.
3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

**Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR**

**O&M Requirements**

There are no Obtain and Maintain Requirements on **FAAST Aguadilla Streetlight (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST Aguadilla Streetlight (Distribution)**.

## Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

### EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conservation Measures for *Epictates inornatus* applies to DL# 1261509. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or



shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa\_rivera@fws.gov.

- Endangered Species Act (ESA) - Conservation Measures for Selected Beaches Turtles PR (see 690545\_AguadillaStreetslights\_ESA\_Beach\_Turtles\_Report). There is potential for sea turtle nesting activity on all ocean-facing sand beaches in Puerto Rico and the US Virgin Islands, including mixed sand and gravel (shell, coral rubble) beaches. The following measures are applicable to green, loggerhead, leatherback, and hawksbill sea turtles. 10. During nesting season (March 1-November 30) a qualified sea turtle monitor shall survey each beach work area for possible sea turtle nests during the morning. Any nests found within the area will be marked or flagged in place. Outside of peak nesting season, beaches where work will occur shall be surveyed at least twice a week. If required, debris removal Construction activities on beaches shall initiate only after the sea turtle monitor has completed surveys that morning and nests are clearly marked. Surveys shall be conducted by sea turtle permit holders or trained personnel following DNER/DPNR protocols (see list of PR sea turtle groups, for USVI contact DPNR). Nests laid adjacent to the work area shall be marked by flagging with a 10-foot square roped off buffer and an unobstructed path seaward from the nest to the water. Surveys will start 45 minutes prior to any construction activity. Sea turtle monitoring groups shall have site specific information for nests in their areas and inform work crews of areas to avoid. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 11. During the sea turtle nesting season, repair or replacement of structures shall occur in the same location or footprint of the previously permitted structure. If the current project footprint does not stay within previously permitted structure footprint, then the applicant must consult with USFWS. 12. Relocation of sea turtle nests to accommodate construction is not authorized. 13. All project activity shall be confined to daylight hours and shall not occur prior to 0800 AST or following the completion of all necessary marine turtle surveys and conservation activities. The sea turtle monitor shall be available via phone after the initial inspection for any coordination throughout the workday. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 14. Only native plant species are authorized to be planted. Existing native dune vegetation shall be disturbed to the minimum extent necessary. For information on appropriate coastal plants see Fish and Wildlife Service BMP document, Sea Turtle Friendly Vegetation. Removal of standing and live coastal vegetation (e.g. sea grapes, mangroves) that are not a hazard is unauthorized. No sea grass, sea weeds, algae nor beach sand shall be removed during beach debris removal efforts. Any vegetation planting shall be installed by hand labor and tools. Irrigation systems shall not be installed within nesting habitat. Applicant will submit a vegetation plan that confirms compliance with these requirements and submit to USFWS at: caribbean\_es@fws.gov. If a sea turtle nest is disturbed or uncovered during vegetation planting activity or project excavation, all work shall cease and the sea turtle monitor shall immediately be contacted. If a nest(s) cannot be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 15. Placement of fill shall not occur within 10 feet of or in any area seaward of a marked sea turtle nest. Nests shall be marked in place with a roped off 10-foot buffer. Dependent upon the fill volume and slope, distance offset from marked turtle nests may be required to be larger to avoid indirect impacts (e.g., fill slumping) to the nest. If the turtle nest cannot be avoided by this distance due to the scope of the project, all work near the nest must be postponed until completion of the sea turtle nesting season (November 30). This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 16. All excavations and temporary alteration of beach topography shall be contoured or leveled to the natural beach profile prior to dusk each day. This includes raking of tire ruts, filling pits or holes where debris was removed, etc. Any potential obstructions such as debris piles, equipment, etc. shall also be removed from the beach by the end of each day. Fill must be placed as landward as practicable to establish or repair dune features. The existing or pre- disaster beach and dune profile must be considered when determining the appropriate siting of fill to provide reasonable longevity of the project. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 17. No vehicles, equipment, staging or debris should be used, parked or stored landward of the primary dune or in vegetated areas. Staging/parking/storage areas shall be located on paved surfaces as much as possible and outside of vegetated areas. Lightweight, all terrain style vehicles, with tire pressures of 10 psi or less can operate on the beach and are the preferred transportation method. However, use of heavy equipment on the beach can be allowed provided it is taken off the beach by 1600 AST local time every night using an approved and designated beach access. All driving on the beach shall be between the high-water mark and the water's edge. This measure will be

conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 18. Removal of vegetation, fence installation, construction activities, and light installation shall be limited within 50 meters from the high tide line. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 19. No construction involving lights shall be used during the nesting season. For Puerto Rico and the USVI, a lighting plan utilizing sea turtle friendly lights for coastal areas is required where lights will be repaired or newly installed. Lighting plans shall be sent to USFWS at: caribbean\_es@fws.gov. Once the plan is fully implemented, a lighting inspection shall be conducted by the Applicant to identify and correct any remaining problematic lights. For projects in Puerto Rico the project shall comply with Puerto Rico Law 218 of 2008, Control and Prevention of the Lighting Pollution of Puerto Rico and the PR EQB 2016 Regulation to Control and Prevent Light Contamination. 20. If an unmarked sea turtle crawl is encountered during or prior to project activity, the work crew shall not disturb the integrity of the crawl. Project personnel shall follow the crawl up the beach or into the dune and contact the qualified sea turtle monitor to inform of the location of the crawl. Care shall be taken to avoid walking or driving equipment over or near a crawl so that a potential nest is not damaged. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 21. Any collision(s) with and/or injury to any sea turtle in water, occurring during the construction of a project, shall be reported immediately to DNER/DPNR and NMFS's Protected Resources Division (PRD) at (1-727-824-5312) or by email to takereport.nmfs@noaa.gov and SAJ-RD-Enforcement@usace.army.mil. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 22. All sea turtle sightings and incidents involving nesting sea turtles or hatchlings shall be reported to DNER/DPNR and the USFWS: Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, PR, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 2016, 787- 510-5207, marelisa\_rivera@fws.gov. This measure will be conducted in accordance with FEMA/USFWS/DNER approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring.

- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available especially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. d. FEMA requires that an archaeologist, who meets the Secretary of the Interior (SOI) Qualification Standards (36 CFR Part 61) for archaeology, be present to monitor all trenching activities within the Traditional Urban Center of Aguadilla (See Enclosure 3). e. Archaeological monitoring of the activities will be documented by the SOI-qualified archaeologist in a report that must be submitted to FEMA's EHP Section for review. The level of description and documentation in the report submitted to FEMA for review shall be consistent with The Secretary of the Interior's Standards and Guidelines for Archaeological Documentation ([https://www.nps.gov/history/local-law/arch\\_stnds\\_7.htm](https://www.nps.gov/history/local-law/arch_stnds_7.htm)). After approval, FEMA EHP will submit the report to PRSHPO for comments and concurrence. f. If there are any further changes to the SOW, including any increase in the extent of ground disturbance, the applicant must notify FEMA beforehand, prior to engaging in further activities not within the current SOW.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance with the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds. 2. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities.
- NEPA Determination - 1. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting

material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material. 2. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.

## EHP Additional Info

There is no additional environmental historical preservation on **FAASt Aguadilla Streetlight (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** MARTINEZ SANTIAGO, ISRAEL

**Reviewed On** 05/01/2023 9:27 AM PDT

#### Review Comments

FEMA Final Review completed. Project ready for Recipient Review.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 05/01/2023 12:01 PM PDT

#### Review Comments

Recipient review completed. Project is ready for Applicant review.

## Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$21,092,584.00 for subaward number 11319 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

The Applicant understands that by participating in this pilot program they will be reimbursed for allowable costs in accordance with 2 CFR Part 200, and the reimbursement will not exceed the Fixed Cost Offer. The Applicant also understands that by agreeing to this Fixed Cost Offer, they will not receive additional funding related to the facilities or sites included in the subaward. The Applicant also acknowledges that failure to comply with the requirements of applicable laws and regulations governing assistance provided by FEMA and the PA Alternative Procedures Pilot Program Guidance (such as procurement and contracting; environmental and historic preservation compliance; and audit and financial accountability) may lead to loss of federal funding.

## Project Signatures

**Signed By** Miller, Thomas

**Signed On** 05/01/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	691702	<b>PW #</b>	11326	<b>Project Type</b>	Specialized
<b>Project Category</b>	F - Utilities	<b>Applicant</b>	PR Electric Power Authority (000-UA2QU-00)		
<b>Project Title</b>	FAASt Distribution Streetlighting - Trujillo Alto (Distribution)			<b>Event</b>	4339DR-PR (4339DR)
<b>Project Size</b>	Large	<b>Declaration Date</b>	9/20/2017		
<b>Activity Completion Date</b>	9/20/2027	<b>Incident Start Date</b>	9/17/2017		
<b>Process Step</b>	Obligated	<b>Incident End Date</b>	11/15/2017		

### Damage Description and Dimensions

The Disaster # 4339DR, which occurred between **09/17/2017** and **11/15/2017**, caused:

#### Damage #1263372; FAASt Distribution Streetlighting - Trujillo Alto

DDD for this facility codified in the 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Trujillo Alto Distribution Streetlighting
- **Facility Description:** The Trujillo Alto municipality has a total of 8195 luminaires of which damage was estimated for 70% of these luminaires. Additional descriptions of typical components of a streetlight system are described below:
  - Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities
  - Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting
  - Luminaire/Light Bulb – The light emitting part of a streetlight
  - Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode
  - Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system
  - Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** [REDACTED]

#### General Damage Information:

- **Date Damaged:** 9/20/2017
- **Cause of Damage:** High winds & wind driven rain, caused by Cat 4 Hurricane Maria

### Final Scope

1263372 **FAASt Distribution Streetlighting - Trujillo Alto**

## Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Distribution Streetlighting Trujillo Alto Phase 1 High Priority project (Trujillo Alto municipality) under DR-4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, replace, and upgrade the eligible facilities in the municipality of Trujillo Alto.

LUMA submits this Detailed SOW pursuant to the T&D O&M Agreement between Puerto Rico, Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A and provided herein as Appendix E which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA.

## Facilities

This project is part of the breakdown division for the Distribution Streetlighting Program which will be impacting each of the municipalities. Characteristics were previously defined to serve the municipality of Trujillo Alto according to the priorities and findings after conducting the assessments.

<b>Physical Address</b>	Trujillo Alto, Puerto Rico
<b>Coordinates</b>	Please refer to Appendix F for Coordinates

## Project Scope of Work Streetlight Repairs:

### Proposed 428 Public Assistance Scope of Work:

#### Lighting Components Replacement

- Remove existing lighting components, including photo controls, luminaires, arms, and associated hardware, and install new lighting components in the same location. No ground disturbance will be required as part of this scope of work.
- Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.
- All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

#### Pole Replacement

- Remove existing streetlight poles, including lighting components and install new streetlight poles, including lighting components, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet. All pole installations are to replace existing poles locations; no new locations are included in this scope of work. Refer to Appendix K column D (Soil area and depth impact) for the depths of the poles to be installed.
- Remove the existing foundations as specified in Appendix G- Cost Estimate and replace them with a new concrete foundation in the same location. Refer to Appendix J for design criteria. 1
- Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Req'd" column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.
- Poles are in close proximity to the roads and are site accessible. The construction of access roads is not required for this scope of work. (Refer to Appendix K in "Site Accessible" column)
- All work for this program will be performed within the current electrical right-of-way for each of the municipalities.

- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3 .
- This scope of work will not affect water or sewer utility services.

#### Trenching/Underground (Replacing Underground Circuit)

- Remove existing trenching and install new trenching within our existing 5' electrical Right of Way as specified in Appendix K. The trench's dimensions are described by LUMA Trench Standard STL-16 (Appendix I), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and follow a straight line between the streetlight pole and its power connection. This activity does not require any vegetation clearance and/or access clearance.
- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G2 and Appendix K3 .
- This scope of work will not affect water or sewer utility services.

#### Material Disposal

- Photocells are considered hazardous waste and will be disposed of by the contractor in approved facilities in compliance with applicable federal and local laws and regulations. Material amounts will be provided by a certified management contractor performing a site evaluation calculation for asbestos, lead paint, roof material.
- No transformer will be removed or disposed of during the Program.
- The type of debris that may be found in the process of removal are luminaires, pole arms, photocells, metal scrap, wiring, concrete, steel, and wood poles, etc. The debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local laws and regulations.

#### Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Arecibo Warehouse, 18°15'24.1"N 66°01'47.8"W. Refer to Appendix M for Warehouse location.

#### Specific List of Permits Required:

- DTOP Endorsements & Municipality Notifications.
- Excavation and Demolition Notification in Department of Transportation and Public Works Agency - (DTOP).
- LUMA will provide proof of all permits as a Condition of FEMA Record of Environmental Considerations.

#### Fill, gravel, sand, etc.:

- Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in Appendix A Preferred Vendors list.

#### List of Equipment to be used:

- Skid Steer, Excavator, Dump trucks, Manlifts, 120-Ton Motor Crane, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine and Flatbed platform.

### **Project Estimate**

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the below table. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has identified risks and allowances (10% of project cost) for the mitigation of potential known risks.

<b>Project Cost Estimate</b>	<b>428 Estimate</b>
Planning, Permits and Applications (FAASt 335168)	\$120,748
Environmental Management (FAASt 335168)	\$575,106
Project Management (FAASt 335168)	\$1,083,423
Engineering (FAASt 335168)	\$1,610,213
Construction	\$23,401,947

Contingency	\$1,875,401
<b>SUBTOTAL</b>	<b>\$28,666,837</b>
<b>428 FAASSt Project 691702</b>	<b>\$25,277,347</b>
<b>FAASSt Project A&amp;E 335168</b>	<b>\$3,389,490</b>

Please refer to Appendix G for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$28,666,837**

**428 A&E Deduction (Global A&E FAASSt 335168) -\$3,389,490**

**428 Project Total Cost: \$25,277,347**

For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Trujillo Alto Municipality.xlsx

#### Project Notes:

1. Refer to detailed SOW provided in document FEMA Detailed Scope of Work Trujillo Alto Phase 1 High Priority - signed.pdf
2. For reference documents Appendix A thru M, see files attached in document section.
3. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.
4. This project is part of a FAASSt project, please reference project 136271.
5. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASSt PREPA work (see project: 335168 - FAASSt A&E PREPA).

## 406 HMP Scope

**Project number / Title:** 691702 / FAASSt [Distribution Streetlighting – Trujillo Alto] (Distribution)

**Damage # / Name:** 1263372 / FAASSt Distribution Streetlight Trujillo Alto

**Applicant:** PR Electric Power Authority (000-UA2QU-00)

**Location:** Trujillo Alto, Puerto Rico

**GPS Latitude/Longitude:** [REDACTED]

#### Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding, and power outage from Hurricane Maria. The incident caused damage to the electrical system, such as the power generation plants, transmission and distribution lines, substations, communication systems, buildings, among other damages to the infrastructures owned, operated, and maintained by the Puerto Rico Electric Power Authority (PREPA).

In the Aguadilla Municipality, PREPA has a total of 2,560ea streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. Note: The FEMA Accelerated Award Strategy (FAASSt) MOR included the PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were



never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The 160mph wind tolerance mitigation measure, will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards.

#### **Hazard Mitigation Proposal (HMP) Scope of Work:**

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

##### **Mitigation Measures (Replacement)**

➤ To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. The FAASt MOR used PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J. Section VI.D.1 of the PAPPG V3.1.

##### **406 Mitigation Scope of Work:**

- Replace (826ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (51ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (751ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (13ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (25ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (3ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (5ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (46ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (509ea) 33ft octagonal concrete poles by (509ea) 39ft octagonal concrete poles.
- Replace (341ea) 35ft galvanized poles by (341ea) 35ft S3.5 galvanized poles.
- Replace (47ea) 30ft aluminum poles by (47ea) 40ft aluminum poles.
- Replace (40ea) 30ft aluminum poles breakaway bases by (40ea) 40ft aluminum poles breakaway bases.
- Replace (47ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (47ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

#### **Hazard Mitigation Proposal (HMP) Cost:**

Total Net Hazard Mitigation Cost (Base Cost) = \$ 763,112.00

+ HM (Applicant A&E, Management & General Conditions) = \$ 246,446.00

Hazard Mitigation Total Cost = **\$1,009,578.00**

#### **HMP Cost-Effectiveness Calculations:**

FEMA's Benefit-Cost Analysis (BCA), methodology evaluates expected risk reduction benefits of a hazard mitigation project and compares those benefits to the cost of the mitigation project. FEMA Public Assistance Program and Policy Guide (PAPPG) Chapter 2. Section VII. C. defines cost effective mitigation as: The Hazard Mitigation Measure is cost effective through an acceptable Benefit Cost Analysis (BCA) with a resulting Benefit Cost Ratio equal to or greater than (1).

The Island Wide Benefit Cost Analysis (IWBCA) created for the PREPA infrastructure defines a maximum potential benefit using the incurred costs of the PREPA FEMA Accelerated Award Strategy (FAASt) fixed cost estimate, the mission assignments utilized for the reconnection effort, and the costs associated with loss of service. This maximum benefit has been developed to fund all mitigation projects from both Public Assistance Hazard Mitigation and the Hazard Mitigation Grant program.

It is the applicant's responsibility to maintain a record of approved IWBCA related projects to avoid running out of funds for their Mitigation portion projects.". Please see attached IWBCA Package

The cost of the Hazard Mitigation Proposal (HMP) described herein is **\$1,009,578.00 (Hazard Mitigation Total Cost)**. The cost of this HMP combined with all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (HMP, HMP cost estimate, Supporting documents file).

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (A&E Deduction - FAASSt Project 335168 Global A&E PREPA))	1.00	Lump Sum	(\$3,389,490.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (Total Cost Estimate - FAASSt Project 136271))	1.00	Lump Sum	\$28,666,837.00	Uncompleted

CRC Gross Cost \$25,277,347.00

Total 406 HMP Cost \$1,009,578.00

Total Insurance Reductions \$0.00

CRC Net Cost \$26,286,925.00

Federal Share (90.00%) \$23,658,232.50

Non-Federal Share (10.00%) \$2,628,692.50

## Award Information

### Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11326(13687)	\$26,286,925.00	90 %	\$23,658,232.50	5/16/2023

### Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

### Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
-----------	----------------	----------------	------------	--------------	--------------------

## Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

## Insurance

### Additional Information

**3/29/2023**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 691702

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

Incident Period: 9/17/2017 to 11/15/2017

Total Public Assistance Amount: \$26,286,925.00 (CRC Gross Cost \$25,277,347.00 + Mitigation Amount \$1,009,578.00)

**COMMERCIAL INSURANCE INFORMATION**

Does the applicant have a Commercial Policy that extends coverage for this facility: Yes

Policies Issued by: Willis Towers Watson, Multinational Insurance Company and Mapfre

Policy Numbers: Willis Towers Watson (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP000318674-0, 88-CP-000318675-0, 88-CP-000318676-0, 88-CP-000318677-0)

Policy Period: From: 5/15/2017 To: 5/15/2018

Policy Limits: \$300,000,000.00

RCV or ACV: Replacement Cost Value

Deductible Amount \$25,000,000.00 each and every occurrence property damage and 30 days each and every occurrence business interruption in respect of Named Windstorm.

Does the Applicant's Commercial Policy extend coverage for the damage described in this project: No

**NUMBER OF DAMAGED LOCATIONS INCLUDED IN THIS PROJECT: (1)**

**Damaged Inventory (DI) #1263372:**

**FAAST Distribution Streetlighting - Trujillo Alto**

Location: Trujillo Alto Distribution Streetlighting

GPS Coordinates: [REDACTED]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$26,286,925.00 (CRC Gross Cost \$25,277,347.00 + Mitigation Amount \$1,009,578.00)

-

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

-

Reduction(s):

No insurance reduction will be applied to this project as coverage is not anticipated. An anticipated insurance reduction of \$193,746,436.00 was applied to FAAST project # 136271 for anticipated insurance proceeds for Hurricane Maria losses. For ease of reference, please see table of insurance allocations: "PREPA Allocation Plan – All Disasters" file.

-

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAAST Distribution Streetlighting - Trujillo Alto because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

FEMA acknowledges that the Applicant is in negotiations with their insurance carrier at the time of the FEMA insurance review and might have received partial settlements. In accordance with 44 CFR §206.250-253, in the absence of an actual settlement, anticipated insurance recoveries will be deducted from this project based on Applicant's insurance policy limits. FEMA subsequently adjusts the eligible costs based on the actual amount of insurance proceeds the Applicant receives after a final settlement.

FEMA's Recovery Policy FP 206-086-1, Public Assistance Policy on Insurance (June 29, 2015), requires applicants to take reasonable efforts to recover insurance proceeds that it is entitled to receive from its insurers. FEMA will consider final insurance settlements that may be less than the insurance policy limits when an applicant demonstrates that it has taken reasonable efforts to recover insurance proceeds that it is entitled on a case-by-case basis.

Standard Insurance Comments

FEMA Policy 206-086-1

**PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)**

**A. Duplication of Benefits.** FEMA cannot provide assistance for disaster-related losses that duplicate benefits available to an applicant from another source, including insurance.

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.
2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.
3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

**Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR**

**O&M Requirements**

There are no Obtain and Maintain Requirements on **FAAST Distribution Streetlighting - Trujillo Alto (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST Distribution Streetlighting - Trujillo Alto (Distribution)**.

## Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

### EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Endangered Species Act (ESA)- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures. Conditions for *Epicrates inornatus* (for the streetlights) 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: (787) 724-5700, (787) 230-5550, (787) 771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its



behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, (787) 851-7297 extension 206, (787) 510-5207, marelisa\_rivera@fws.gov.

- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. FEMA requires that an archaeologist, who meets the Secretary of the Interior (SOI) Qualification Standards (36 CFR Part 61) for archaeology, be present to monitor all ground disturbance activities related with trench excavation in the Traditional Urban Center of Trujillo Alto (See enclosed map with the attached Archaeological Monitoring Plan). The Subrecipient and/or Subrecipient's contractor must follow the attached archaeological monitoring plan. d. Archaeological monitoring of the activities will be documented by the SOI-qualified archaeologist in a report that must be submitted to FEMA's EHP Section for review. The level of description and documentation in the report submitted to FEMA for review shall be consistent with The Secretary of the Interior's Standards and Guidelines for Archaeological Documentation ([http://www.nps.gov/history/local-law/arch\\_stnds\\_7.htm](http://www.nps.gov/history/local-law/arch_stnds_7.htm)). After approval, FEMA EHP will submit the report to PRSHPO for comments and concurrence. e. Additional staging areas and/or work pads within work site area haven't been identified yet. The Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. f. If there are any further changes to the SOW, including any increase in the extent of ground disturbance, the applicant must notify FEMA beforehand, prior to engaging in further activities not within the current SOW.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all solid and hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage, and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material. 2. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.
- EO 11988- Floodplains- Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files

## EHP Additional Info

There is no additional environmental historical preservation on **FAASt Distribution Streetlighting - Trujillo Alto (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** MARTINEZ SANTIAGO, ISRAEL

**Reviewed On** 04/21/2023 12:22 PM PDT

#### Review Comments

FEMA Final completed. Project ready for Recipient Review.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 04/21/2023 2:32 PM PDT

#### Review Comments

Recipient review completed. Project is ready for applicant review.

## Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$26,286,925.00 for subaward number 11326 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

The Applicant understands that by participating in this pilot program they will be reimbursed for allowable costs in accordance with 2 CFR Part 200, and the reimbursement will not exceed the Fixed Cost Offer. The Applicant also understands that by agreeing to this Fixed Cost Offer, they will not receive additional funding related to the facilities or sites included in the subaward. The Applicant also acknowledges that failure to comply with the requirements of applicable laws and regulations governing assistance provided by FEMA and the PA Alternative Procedures Pilot Program Guidance (such as procurement and contracting; environmental and historic preservation compliance; and audit and financial accountability) may lead to loss of federal funding.

## Project Signatures

**Signed By** Miller, Thomas

**Signed On** 04/24/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	704755	<b>PW #</b>	11352	<b>Project Type</b>	Specialized
<b>Project Category</b>	F - Utilities	<b>Applicant</b>	PR Electric Power Authority (000-UA2QU-00)		
<b>Project Title</b>	FAAST [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)			<b>Event</b>	4339DR-PR (4339DR)
<b>Project Size</b>	Large	<b>Declaration Date</b>	9/20/2017		
<b>Activity Completion Date</b>	9/20/2027	<b>Incident Start Date</b>	9/17/2017		
<b>Process Step</b>	Obligated	<b>Incident End Date</b>	11/15/2017		

### Damage Description and Dimensions

The Disaster # 4339DR, which occurred between **09/17/2017** and **11/15/2017**, caused:

#### Damage #1297081; FAASt [Distribution Pole and Conductor Repair - Bayamon Group 12-13-14]

DDD for this facility codified in the 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Distribution pole and conductor - Bayamon Group 12,13 and 14
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1970
- **GPS Latitude/Longitude:** [REDACTED]

#### General Damage Information:

- **Date Damaged:** 9/20/2017
- **Cause of Damage:** High winds & wind driven rain, caused by Cat 4 Hurricane Maria

### Final Scope

**1297081** **FAAST [Distribution Pole and Conductor Repair - Bayamon Group 12-13-14]**

#### INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Bayamon Group 12-13-14 Project under DR-4339- PR Public Assistance. The document

provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facilities.

LUMA submits this detailed SOW pursuant to the Transmission and Distribution Operations & Maintenance Agreement between Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A and provided herein as Appendix F which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the Transmission and Distribution System submitted to FEMA.

## FACILITIES

The facilities listed below are part of the feeder systems in the Bayamon Region. These interconnected and inter-functional distribution feeders (sites) are part of the electrical distribution system. All the feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below as "GPS End" represent the end of the mainline backbone of each feeder.

Bayamón Group 12							
Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
Cana	7602-05	3			3 Phase	13.2	More than 20 Years
Amelia	1803-03	2			3 Phase	4.16	More than 20 Years
Bayamón Group 13							
Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
Guaynabo Pueblo	1901-05	1			3 Phase	4.16	More than 20 Years
Juan Domingo	1903-05	1			3 Phase	4.16	More than 20 Years
Bayamón Group 14							
Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
Dorado Pueblo	9202-01	1			3 Phase	4.16	More than 20 Years
Dorado Pueblo	9202-03	7			3 Phase	8.32	More than 20 Years
Dorado PDS	9206-08	2			3 Phase	13.2	More than 20 Years
Unibon	9501-03	2			3 Phase	8.32	More than 20 Years

## PROJECT SCOPE OF WORK

Below includes a breakdown of pole replacement by feeder for "Proposed 428 Public Assistance Scope of Work" and "Proposed 406 Hazard Mitigation Grant Program Scope of Work", followed by descriptions of each work type specific to the Scope of Work for this group.

### Proposed 428 Public Assistance Scope of Work:

#### Feeder 1719-19 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	50ft H4 Concrete Pole	1
40ft Concrete Pole(s)	1	50ft H4 Concrete Pole	1
40ft Concrete Pole(s)	1	50ft H6 Concrete Pole	1

#### Feeder 1803-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H6 Concrete Pole	1
40ft Wood Pole(s)	1	50ft H6 Concrete Pole	1

#### Feeder 1901-05 Scope:

Remove	Quantity	Install	Quantity
30ft Wood Pole(s)	1	50ft H4 Concrete Pole	1

#### Feeder 1903-05 Scope:

Remove	Quantity	Install	Quantity
45ft Steel Pole(s)	1	50ft H6 Concrete Pole	1

Feeder 9202-01 Scope:

Remove	Quantity	Install	Quantity
30ft Wood Pole(s)	1	50ft H6 Concrete Pole	1

Feeder 9203-03 Scope:

Remove	Quantity	Install	Quantity
30ft Wood / 40 Wood Pole(s)	2	50ft H6 Concrete Pole	2
35ft Wood Pole(s)	2	50ft H6 Concrete Pole	2
35ft Wood Pole(s)	1	50ft Galvanized Steel S8 pole(s)	1
40ft Wood Pole(s)	2	50ft H6 Concrete Pole	2

Feeder 9206-08 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H6 Concrete Pole	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole	1

Feeder 9501-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H4 Concrete Pole	1
40ft Steel Pole(s)	1	50ft H4 Concrete Pole	1

### Detail Descriptions for Planned Field Work:

#### Pole Replacement

- Remove existing poles, including hardware and install new poles, including hardware, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.
- All pole installations are to replace existing pole locations; no new locations are included in this scope of work. Refer to Appendix J- EHP Checklist, column C (Soil area and depth impact) for the depths of the poles to be installed.
- Remove the existing foundations as specified in Appendix J- EHP Checklist column I (Concrete Foundation) and replace them with a new concrete foundation bases as per Appendix D-Distribution Construction Standards (Concrete Base Standard). The maximum auger width used is 42" and the maximum depth drilled is 15ft.
- New guy wire/ anchors are to be installed in compliance with Appendix D- Distribution Construction Standards within 3ft from the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.
- Brushing will be required in locations to gain access to the pole for replacement. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 15 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. Please see Appendix J- EHP Checklist column H (Brushing/Clearing), Refer to Appendix B- Maps and Pictures for pictures of the vegetation.
- All work for this program will be performed within the current electrical right-of-way.
- This scope of work will not affect water or sewer utility services.

#### Material Disposal

- PCBs, oil from the transformer and breakers, sealants, and other chemical wastes typical of a construction site are considered hazardous waste and will be disposed of by the contractor in approved facilities as per applicable local regulations. Refer to Appendix C - Waste Management Plan.
- The type of debris that may be found in the process of removal are luminaires, pole arms, photocells, metal scrap, wiring, concrete, steel, and wood poles, etc. The debris will be separated and taken to an approved waste disposal facility in compliance with applicable local regulations. Refer to Appendix C- Waste Management Plan.
- Transformers will be contained and returned to LUMA in compliance with applicable local regulations. The removal of the transformer will require testing of the existing oil for PCB levels, drain oil, and delivery to the approved waste disposal site as per Environmental Regulations. Refer to Appendix C- Waste Management Plan.

#### Access Roads

- Poles are in close proximity to the roads and are site accessible. The construction of access roads is not required for this scope of work. Refer to Appendix J- EHP Checklist in column G "Site Accessible".

#### Staging Area

- All materials are stored and dispatched from the Bayamon Regional Warehouse. Refer to Appendix L- Warehouse locations. No additional or temporary staging areas are required.

#### Fill, gravel, sand, etc.:

- Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in Appendix A- Approved Supplier List.

#### List of Equipment to be used:

- Skid Steer, Excavator, Dump trucks, Manlifts, 120-Ton Motor Crane, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine and Flatbed platform.

- Vegetation will be removed utilizing machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper.

Specific List of Permits Required:

- DTOP Endorsements & Municipality Notifications.
- Excavation and Demolition Notification in Department of Transportation and Public Works Agency - (DTOP).
- LUMA will provide proof of all permits.

## PROJECT ESTIMATE

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the table below. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has allocated 10% of the project cost for the mitigation of potential known risks.

Project Cost Estimate	428 Public Assistance
Planning, Permits and Applications	\$10,222.00
Environmental Management	\$14,611.00
Engineering	\$39,078.60
Project Management	\$19,539.30
Distribution Line	\$390,786.00
Contingency	\$47,423.69
<b>Total Project Cost Estimate:</b>	<b>\$521,660.59</b>
FAASt Project # 704755 (428) Total	\$438,209.69
FAASt A&E #335168 Total	\$83,450.90

**428 Work To Be Completed (WTBC): \$521,660.59**

**428 A&E Deduction (Global A&E FAASt 335168) -\$83,450.90**

**428 Project Total Cost: \$438,209.69**

For detailed cost estimate, please refers to document labeled: 704755-DR4339PR-Appendix H - Detail Cost Estimate - Bayamon Group 12-13-14 Rev1.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 704755-DR4339PR-Detailed SOW Bayamon Group 12-13-14 Rev0.pdf
2. For reference documents Appendix A thru L, see file labeled

APPENDIX A - Approved Supplier List

APPENDIX B - Maps and Pictures



APPENDIX C - Waste Management Plan

APPENDIX D - Distribution Construction Standards

APPENDIX E - LUMA Wildlife Avian and Historical Protection Procedure #335

APPENDIX F - Consent to Federal Funding Letter - FEMA/COR3

APPENDIX G - Structure Coordinates

APPENDIX H - Detail Cost Estimate

APPENDIX I - PAPPG Appendix J - Cost-Effective Hazard Mitigation Measures

APPENDIX J - EHP Checklist APPENDIX K - EHP Maps

APPENDIX L - Warehouse Location

3. For EHP Requirements, refer to pages 6 to 8 of the detailed SOW and reference documents: Appendix J & K.

4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335168 - FAASt A&E PREPA).

## 406 HMP Scope

?Project Number: 704755 Distribution Pole and Conductor Repair - Bayamon Group 12-13-14

Damage #1297081; FAASt [Distribution Pole and Conductor Repair - Bayamon Group 12-13-14]

Applicant: PR Electric Power Authority (000-UA2QU-00)

Location: Bayamon, Puerto Rico

GPS Coordinates Latitude/Longitude: [REDACTED]

### Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding, and power outage "loss of power" from Hurricane Maria. The incident caused damage to the electrical system, such as the power generation plants, transmission and distribution lines, substations, communication systems, buildings, among other damages to the infrastructures owned, operated, and maintained by the Puerto Rico Electric Power Authority (PREPA).

#### Project #704755 Distribution Pole and Conductor Repair - Bayamon Group 12-13-14

The Distribution Pole and Conductor Repair-Bayamon Group 12-13-14 consists of 8 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: **Bayamon Group 12:** Cana 1719-19, Amelia 1803-03; **Bayamon Group 13:** Guaynabo Pueblo 1901-05, Juan Domingo 1903-05, **Bayamon Group 14:** Dorado Pueblo 9202-01, Dorado Pueblo 9202-03, Dorado PDS 9206-08, Unibon 9501-03.

The Method of Repair (MOR) included the replacement of the damaged critical distribution poles (wood, concrete or galvanized), cross-arms, insulators, and all associated hardware needed for the new structure. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles by increasing the wind tolerance to +160mph. Note: The FEMA Accelerated Award Strategy (FAASt) MOR included the PREPA distribution standards and specifications that were based on a 145mph sustained winds. However, the new PREPA Standard 2021 updates the design-criteria to a 160mph sustained winds resistant. The +160mph wind tolerance mitigation measure, will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards.

### (II) Hazard Mitigation Proposal (HMP) Scope of Work:

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

**Mitigation Measures (Replacement)**

1. To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles by increasing the wind tolerance of all materials to +160mph. The FAASt MOR included the PREPA distribution standards and specifications that were based on a 145mph sustained winds. However, the new PREPA Standard 2021 updates the design-criteria to a 160mph sustained winds resistant. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J: Section VI.D.1 of the PAPPG V3.1.

➤ **[Distribution Critical Poles Replacement] 406 Mitigation Scope of Work:**

1. Feeder 1719-19 Scope (3 ea.):
  - Replace two (2) 50ft concrete H4 pole by two (2) 50ft galvanized steel S8 pole.
  - Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
2. Feeder 1803-03 Scope (2 ea.):
  - Replace two (2) 50ft concrete H6 pole by two (2) 50ft galvanized steel S8 pole.
3. Feeder 1901-05 Scope (1ea.):
  - Replace one (1) 50ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
4. Feeder 1903-05 Scope (1 ea.):
  - Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
5. Feeder 9202-01 Scope (1ea.):
  - Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
6. Feeder 9203-03 Scope (7 ea.):
  - Replace six (6) 50ft concrete H6 pole by six (6) 50ft galvanized steel S8 pole.
  - No 406 Hazard Mitigation work identified to replace one (1) 50ft galvanized steel S8 poles. In this case, Mitigation is accomplished by 428 PA method of repair (MOR).
7. Feeder 9206-08 Scope (2 ea.):
  - Replace two (2) 50ft concrete H6 pole by two (2) 50ft galvanized steel S8 pole.
8. Feeder 9501-03 Scope (2 ea.):
  - Replace two (2) 50ft concrete H4 pole by two (2) 50ft galvanized steel S8 pole.

**(III) Hazard Mitigation Proposal (HMP) Cost**

Total Net Hazard Mitigation Cost (Base Cost) =	\$68,128.00
+ HMsft Cost) =	<u>\$18,053.92</u>
Hazard Mitigation Total Cost =	<b>\$86,181.92</b>

**(IV) HMP Cost-Effectiveness Calculations**

FEMA's Benefit-Cost Analysis (BCA), methodology evaluates expected risk reduction benefits of a hazard mitigation project and compares those benefits to the cost

of the mitigation project. FEMA Public Assistance Program and Policy Guide (PAPPG) Chapter 2, Section VII. C. defines cost effective mitigation as: The Hazard Mitigation Measure is cost effective through an acceptable Benefit Cost Analysis (BCA) with a resulting Benefit Cost Ratio equal to or greater than (1).

The Island Wide Benefit Cost Analysis (IWBCA) created for the PREPA infrastructure defines a maximum potential benefit using the incurred costs of the PREPA FEMA Accelerated Award Strategy (FAAST) fixed cost estimate, the mission assignments utilized for the reconnection effort, and the costs associated with loss of service. This maximum benefit has been developed to fund all mitigation projects from both Public Assistance Hazard Mitigation and the Hazard Mitigation Grant program.

It is the applicant's responsibility to maintain a record of approved IWBCA related projects to avoid running out of funds for their Mitigation portion projects." Please see attached IWBCA Package

The cost of the Hazard Mitigation Proposal (HMP) described herein is **\$86,181.92 (Hazard Mitigation Total Cost)**. The cost of this HMP combined with all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

**\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (HMP, HMP cost estimate, Supporting documents file).**

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (Engineering And Design Services (A&E Deduction from Project 335168 - FAASSt A&E PREPA)))	1.00	Lump Sum	(\$83,450.90)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (9001 (Contract (Total Cost Estimate) FAASSt Project 136271))	1.00	Lump Sum	\$521,660.59	Uncompleted

CRC Gross Cost \$438,209.69

Total 406 HMP Cost \$86,181.92

Total Insurance Reductions \$0.00

CRC Net Cost \$524,391.61

Federal Share (90.00%) \$471,952.45

Non-Federal Share (10.00%) \$52,439.16

## Award Information

### Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11352(13689)	\$524,391.61	90 %	\$471,952.45	5/16/2023

### Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

### Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
-----------	----------------	----------------	------------	--------------	--------------------

## Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

## Insurance

### Additional Information

**4/17/2023**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 704755

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

Incident Period: 9/17/2017 to 11/15/2017

Total Public Assistance Amount: \$524,391.61 (CRC Gross Cost \$438,209.69 + HMP Cost \$86,181.92).

**COMMERCIAL INSURANCE INFORMATION**

Does the applicant have a Commercial Policy that extends coverage for this facility: Yes

Policies Issued by: Willis Towers Watson, Multinational Insurance Company and Mapfre

Policy Numbers: Willis Towers Watson (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP000318674-0, 88-CP-000318675-0, 88-CP-000318676-0, 88-CP-000318677-0)

Policy Period: From: 5/15/2017 To: 5/15/2018

Policy Limits: \$300,000,000.00

RCV or ACV: Replacement Cost Value

Deductible Amount \$25,000,000.00 each and every occurrence property damage and 30 days each and every occurrence business interruption in respect of Named Windstorm.

Does the Applicant's Commercial Policy extend coverage for the damage described in this project: No

**NUMBER OF DAMAGED LOCATIONS INCLUDED IN THIS PROJECT: (1)**

**Damaged Inventory (DI) # 1297081:**

**FAAST [Distribution Pole and Conductor Repair - Bayamon Group 12-13-14]**

Location: Distribution pole and conductor - Bayamon Group 12,13 and 14.

GPS Coordinates: XXXXXXXXXX

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$524,391.61 (CRC Gross Cost \$438,209.69 + HMP Cost \$86,181.92).

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

No insurance reduction will be applied to this project as coverage is not anticipated. An anticipated insurance reduction of \$193,746,436.00 was applied to FFAST project # 136271 for anticipated insurance proceeds for Hurricane Maria losses. For ease of reference, please see table of insurance allocations: "PREPA Allocation Plan – All Disasters" file.

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for (FAAST -Distribution Pole and Conductor Repair - Bayamon Group 12-13-14) because facility does not meet the definition of building, equipment, contents, or vehicle..

Insurance Proceeds Statement:

FEMA acknowledges that the Applicant is in negotiations with their insurance carrier at the time of the FEMA insurance review and might have received partial settlements. In accordance with 44 CFR §206.250-253, in the absence of an actual settlement, anticipated insurance recoveries will be deducted from this project based on Applicant's insurance policy limits. FEMA subsequently adjusts the eligible costs based on the actual amount of insurance proceeds the Applicant receives after a final settlement.

FEMA's Recovery Policy FP 206-086-1, Public Assistance Policy on Insurance (June 29, 2015), requires applicants to take reasonable efforts to recover insurance proceeds that it is entitled to receive from its insurers. FEMA will consider final insurance settlements that may be less than the insurance policy limits when an applicant demonstrates that it has taken reasonable efforts to recover insurance proceeds that it is entitled to on a case-by-case basis.

Standard Insurance Comments

FEMA Policy 206-086-1

**PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)**

**A. Duplication of Benefits.** FEMA cannot provide assistance for disaster-related losses that duplicate benefits available to an applicant from another source, including insurance.

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.
2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.
3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

**Virginia Hernandez Rivera, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR**

## O&M Requirements

There are no Obtain and Maintain Requirements on **FAAST**



## 406 Mitigation

There is no additional mitigation information on **FAAST**  
[Distribution Pole and Conductor Repair-Bayamon Group  
12-13-14] (Distribution).

## Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

### EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA)- Conservation Measures for *Epictates inornatus* apply to Feeder 1903-05. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or

shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa\_rivera@fws.gov.

- National Historic Preservation Act (NHPA) - 1. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. 2. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022 3. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) 1. The applicant is responsible to ensure damaged transformers are handled, managed, and disposed of in accordance with all federal and state laws and requirements. Downed electrical equipment may contain toxic and hazardous materials, such as polychlorinated biphenyls (PCBs), and may spill these materials if a rupture occurs. Applicant is responsible for screening transformers that do or may contain PCBs and the area where any related spill occurred. The applicant is then responsible to handle, manage, dispose of, or recycle damaged equipment and contaminated soil as appropriate. Where possible, temporary measures should be implemented to prevent, treat, or contain further releases or mitigate the migration of PCBs into the environment. If damaged equipment or material storage containers must be stored temporarily, containers should be placed on hardened surface areas, such as a concrete or an asphalt for no more than 90 days. Excavated contaminated material should be disposed of in accordance with federal and state laws and requirements. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance with the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds. 3. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities.
- NEPA Determination- 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material

There is no additional environmental historical preservation on **FAASt [Distribution Pole and Conductor Repair-Bayamon Group 12-13-14] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** MARTINEZ SANTIAGO, ISRAEL

**Reviewed On** 04/27/2023 2:59 PM PDT

#### Review Comments

FEMA Final completed. Project ready for Recipient Review.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 04/28/2023 12:02 PM PDT

#### Review Comments

Recipient review completed. Project is ready for applicant review.

## Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$524,391.61 for subaward number 11352 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

The Applicant understands that by participating in this pilot program they will be reimbursed for allowable costs in accordance with 2 CFR Part 200, and the reimbursement will not exceed the Fixed Cost Offer. The Applicant also understands that by agreeing to this Fixed Cost Offer, they will not receive additional funding related to the facilities or sites included in the subaward. The Applicant also acknowledges that failure to comply with the requirements of applicable laws and regulations governing assistance provided by FEMA and the PA Alternative Procedures Pilot Program Guidance (such as procurement and contracting; environmental and historic preservation compliance; and audit and financial accountability) may lead to loss of federal funding.

## Project Signatures

**Signed By** Miller, Thomas

**Signed On** 05/01/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	704844	<b>P/W #</b>	11340	<b>Project Type</b>	Specialized
<b>Project Category</b>	F - Utilities	<b>Applicant</b>	PR Electric Power Authority (000-UA2QU-00)		
<b>Project Title</b>	FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)			<b>Event</b>	4339DR-PR (4339DR)
<b>Project Size</b>	Large	<b>Declaration Date</b>	9/20/2017		
<b>Activity Completion Date</b>	9/20/2027	<b>Incident Start Date</b>	9/17/2017		
<b>Process Step</b>	Obligated	<b>Incident End Date</b>	11/15/2017		

### Damage Description and Dimensions

The Disaster # 4339DR, which occurred between 09/17/2017 and 11/15/2017, caused:

#### Damage #1297104; FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20]

DDD for this facility codified in the 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Distribution pole and conductor - Caguas Group 16-17-18-19-20
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1970
- **GPS Latitude/Longitude:** [REDACTED]

#### General Damage Information:

- **Date Damaged:** 9/20/2017
- **Cause of Damage:** High winds & wind driven rain, caused by Cat 4 Hurricane Maria

### Final Scope

#### 1297104 FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20]

#### INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 16-17-18-19-20 Project under DR[1]4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible

facilities.

LUMA submits this detailed SOW pursuant to the Transmission and Distribution Operations & Maintenance Agreement between Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A and provided herein as Appendix F which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the Transmission and Distribution System submitted to FEMA.

## FACILITIES

The facilities listed below are part of the feeder systems in the Caguas Region. These interconnected and inter-functional distribution feeders (sites) are part of the electrical distribution system. All the feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below as "GPS End" represent the end of the mainline backbone of each feeder.

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
HUMACAO PUEBLO	2601-02	2			3 Phase	8.32	More than 20 Years
VILLAS DE CASTRO	3013-01	4			3 Phase	8.32	More than 20 Years
GAUTIER BENITEZ	3015-06	1			3 Phase	13.2	More than 20 Years
GURABO PDS	3102-02	3			3 Phase	13.2	More than 20 Years
JUNCOS	3205-09?	2			3 Phase	13.2	More than 20 Years
SAN LORENZO	3301-03	1			3 Phase	8.32	More than 20 Years
CAYEY	3401-01	2			3 Phase	8.32	More than 20 Years

## Project Scope of Work

Below includes a breakdown of pole replacement by feeder for "Proposed 428 Public Assistance Scope of Work" and "Proposed 406 Hazard Mitigation Grant Program Scope of Work", followed by descriptions of each work type specific to the Scope of Work for this group.

### Proposed 428 Public Assistance Scope of Work:

Feeder 2601-04 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 3013-01 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	4	45ft H4 Concrete Pole(s)	4

Feeder 3015-06 Scope:

Remove	Quantity	Install	Quantity
40ft Concrete Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 3102-02 Scope:

Remove	Quantity	Install	Quantity
33ft Concrete Pole(s)	1	45ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s)	2	45ft H4 Concrete Pole(s)	2

Feeder 3205-09 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1

Feeder 3301-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 3401-01 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1

**Detail Descriptions for Planned Field Work:**

Pole Replacement

- Remove existing poles, including hardware and install new poles, including hardware, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

- All pole installations are to replace existing pole locations; no new locations are included in this scope of work. Refer to Appendix J- EHP Checklist, column C (Soil area and depth impact) for the depths of the poles to be installed.
- Remove the existing foundations as specified in Appendix J- EHP Checklist column I (Concrete Foundation) and replace them with a new concrete foundation bases as per Appendix D-Distribution Construction Standards (Concrete Base Standard). The maximum auger width used is 42" and the maximum depth drilled is 15ft.
- New guy wire/ anchors are to be installed in compliance with Appendix D- Distribution Construction Standards within 3ft from the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.
- Brushing will be required in locations to gain access to the pole for replacement. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 15 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. Please see Appendix J- EHP Checklist column H (Brushing/Clearing), Refer to Appendix B- Maps and Pictures for pictures of the vegetation.
- All work for this program will be performed within the current electrical right-of-way.
- This scope of work will not affect water or sewer utility services.

#### Material Disposal

- PCBs, oil from the transformer and breakers, sealants, and other chemical wastes typical of a construction site are considered hazardous waste and will be disposed of by the contractor in approved facilities as per applicable local regulations. Refer to Appendix C - Waste Management Plan.
- The type of debris that may be found in the process of removal are luminaires, pole arms, photocells, metal scrap, wiring, concrete, steel, and wood poles, etc. The debris will be separated and taken to an approved waste disposal facility in compliance with applicable local regulations. Refer to Appendix C- Waste Management Plan.
- Transformers will be contained and returned to LUMA in compliance with applicable local regulations. The removal of the transformer will require testing of the existing oil for PCB levels, drain oil, and delivery to the approved waste disposal site as per Environmental Regulations. Refer to Appendix C- Waste Management Plan.

#### Access Roads

- Poles are near the roads and are site accessible. The construction of access roads is not required for this scope of work. Refer to Appendix J- EHP Checklist in column G "Site Accessible".

#### Staging Area

- All materials are stored and dispatched from the Caguas Regional Warehouse. Refer to Appendix L- Warehouse locations. No additional or temporary staging areas are required.

#### Fill, gravel, sand, etc.:

- Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in Appendix A- Approved Supplier List.

#### List of Equipment to be used:

- Skid Steer, Excavator, Dump trucks, Manlifts, 120-Ton Motor Crane, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine and Flatbed platform.
- Vegetation will be removed utilizing machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper.

#### Specific List of Permits Required:

- DTOP Endorsements & Municipality Notifications.
- Excavation and Demolition Notification in Department of Transportation and Public Works Agency - (DTOP).
- LUMA will provide proof of all permits.

#### **Proposed 406 Hazard Mitigation Grant Program Scope of Work:**

Replace damaged poles with higher-rated poles as referenced in Appendix H in compliance with Appendix J of the Public Assistance Program and Policy Guide. Design standard has increase from FEMA consensus-based standards (145mph rating) to new LUMA standard (160mph rating).

Utilize 406 Hazard Mitigation Pole below in place of 428 Identified Pole	Quantity
50ft Galvanized Steel S8 pole(s)	15

## TYPE OF PROJECT

### Restoration to Codes/Standards:

Restores the facility(ies) to pre-disaster function and approved codes/standards.

This work is to comply with FEMA (Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR February 2020)

## CODES AND STANDARDS

The following will be referenced when applying specific codes, specifications, and standards to the project design:

1. Consensus-based codes, per FEMA (Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR February 2020).
2. Industry standards per FEMA Recovery Policy FP-104-009-5, Version 2, Implementing Section 20601 of the 2018 Bipartisan Budget Act through the Public Assistance Program.
3. FEMA Recovery Interim Policy FP-104-009-11 Version 2.1, Consensus-Based Codes, Specifications, and Standards for Public Assistance.
4. LUMA's latest Design Criteria Document (DCD) which aggregates the design considerations for most of the consensus-based codes, specifications, and standards listed in FEMA Recovery Interim Policy 104-009-11 Version 2.1 (December 20, 2019).

## PROJECT ESTIMATE

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the table below. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has allocated 10% of the project cost for the mitigation of potential known risks.

Project Cost Estimate	Total	428 Public Assistance	406 Hazard Mitigation
Planning, Permits and Applications (FAASt 335168)	\$8,070	\$8,070	\$0
Environmental Management (FAASt 335168)	\$11,535	\$11,535	\$0
Engineering (FAASt 335168)	\$28,590	\$28,590	\$7,001
Project Management (FAASt 335168)	\$14,295	\$14,295	\$3,500
Distribution Line	\$285,901	\$285,901	\$70,006
Contingency	\$34,839	\$34,839	\$8,051
<b>Total Project Cost Estimate:</b>	<b>\$471,788</b>	<b>\$383,230</b>	<b>\$88,558</b>
FAASt Project # 704844 (428) Total			\$320,740



FAASt Project # 704844 (406) Total	\$88,558
FAASt A&E #335168 Total	\$62,490
<b>Total Cost</b>	<b>\$471,788</b>

**428 Work To Be Completed (WTBC): \$383,230**

**428 A&E Deduction (Global A&E FAASt 335168) -\$62,490**

**428 Project Total Cost: \$320,740**

For detailed cost estimate, please refers to document labeled: 704844-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 16-17-18-19-20 Rev0.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 704844-DR4339PR-Detailed SOW Caguas Group 16-17-18-19-20 Rev0.pdf
2. For reference documents Appendix A through L, see file labeled

APPENDIX A - Approved Supplier List

APPENDIX B - Maps and Pictures

APPENDIX C - Waste Management Plan

APPENDIX D - Distribution Construction Standards

APPENDIX E - LUMA Wildlife Avian and Historical Protection Procedure #335

APPENDIX F - Consent to Federal Funding Letter - FEMA/COR3

APPENDIX G - Structure Coordinates

APPENDIX H - Detail Cost Estimate

APPENDIX I - PAPPG Appendix J - Cost-Effective Hazard Mitigation Measures

APPENDIX J - EHP Checklist

APPENDIX K - EHP Maps

APPENDIX L - Warehouse Location

3. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix J & K.
4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335168 - FAASt A&E PREPA).
5. This project is part of a FAAST project, please reference project 136271.

## 406 HMP Scope

**Project number:** 690545; FAASt [Distribution Streetlighting - Aguadilla] (Distribution)

**Damage #1297104; FAASt [Distribution Pole and Conductor Repair-Caguas Group 16-17-18-19-20 (Distribution)**

**Applicant:** PR Electric Power Authority (000-UA2QU-00)

**Location:** Caguas, Puerto Rico

**GPS Latitude/Longitude:** [REDACTED]

### **Hazard Mitigation Narrative**

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding, and power outage "loss of power" from Hurricane Maria. The incident caused damage to the electrical system, such as the power generation plants, transmission and distribution lines, substations, communication systems, buildings, among other damages to the infrastructures owned, operated, and maintained by the Puerto Rico Electric Power Authority (PREPA).

#### **Project #704844 [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20]**

The Distribution Pole and Conductor Repair- Caguas Group 16-17-18-19-20 consists of 7 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: HUMACAO PUEBLO :2601-02; VILLAS DE CASTRO: 3013-01; GAUTIER BENITEZ: 3015-06; GURABO PDS: 3102-02; JUNCOS: 3205-09; SAN LORENZO: 3301-03; CAYEY: 3401-01.

The Method of Repair (MOR) included the replacement of the damaged critical distribution poles (wood, concrete or galvanized), cross-arms, insulators, and all associated hardware needed for the new structure. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles by increasing the wind tolerance to +160mph. Note: The FEMA Accelerated Award Strategy (FAAST) MOR included the PREPA distribution standards and specifications that were based on a 145mph sustained winds. However, the new PREPA Standard 2021 updates the design-criteria to a 160mph sustained winds resistant. The +160mph wind tolerance mitigation measure, will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards.

### **Hazard Mitigation Proposal (HMP) Scope of Work:**

In order to prevent or reduce future damages from similar events, the applicant proposed the following mitigation measures:

#### **Mitigation Measures (*Replacement*)**

- To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. The FAASt MOR used PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J: Section VI.D.1 of the PAPPG V3.1.

#### **➤ [Distribution Critical Poles Replacement] 406 Mitigation Scope of Work:**

##### **1. Feeder 2601-04 Scope (2 ea.):**

- Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.

##### **2. Feeder 3013-01 Scope (4 ea.):**

- Replace four (4) 45ft concrete H4 poles by four (4) 50ft galvanized steel S8 poles.

##### **3. Feeder 3015-06 Scope (1ea):**

- Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.

##### **4. Feeder 3102-02 Scope (3ea):**

- Replace one (1) 45ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
- Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.

##### **5. Feeder 3205-09 Scope (2ea):**

- Replace two (2) 50ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.

##### **6. Feeder 3301-03 Scope (1ea):**

- Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.

##### **7. Feeder 3401-01 Scope (2ea):**

- Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
- Replace one (1) 50ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.

**Hazard Mitigation Proposal (HMP) Cost:**

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 70,006.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 18,552.00</u>
Hazard Mitigation Total Cost =	<b>\$ 88,558.00</b>

-

**HMP Cost-Effectiveness Calculations:**

FEMA's Benefit-Cost Analysis (BCA), methodology evaluates expected risk reduction benefits of a hazard mitigation project and compares those benefits to the cost of the mitigation project. FEMA Public Assistance Program and Policy Guide (PAPPG) Chapter 2. Section VII. C. defines cost effective mitigation as: The Hazard Mitigation Measure is cost effective through an acceptable Benefit Cost Analysis (BCA) with a resulting Benefit Cost Ratio equal to or greater than (1).

The Island Wide Benefit Cost Analysis (IWBCA) created for the PREPA infrastructure defines a maximum potential benefit using the incurred costs of the PREPA FEMA Accelerated Award Strategy (FAAST) fixed cost estimate, the mission assignments utilized for the reconnection effort, and the costs associated with loss of service. This maximum benefit has been developed to fund all mitigation projects from both Public Assistance Hazard Mitigation and the Hazard Mitigation Grant program.

It is the applicant's responsibility to maintain a record of approved IWBCA related projects to avoid running out of funds for their Mitigation portion projects.". Please see attached IWBCA Package

The cost of the Hazard Mitigation Proposal (HMP) described herein is **\$88,558.00 (Hazard Mitigation Total Cost)**. The cost of this HMP combined with all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (HMP, HMP cost estimate, Supporting documents file).

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (FAASt Global A/E 335168))	1.00	Lump Sum	(\$62,490.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (FAASt Project 704844))	1.00	Lump Sum	\$383,230.00	Uncompleted

CRC Gross Cost	\$320,740.00
Total 406 HMP Cost	\$88,558.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$409,298.00
Federal Share (90.00%)	\$368,368.20
Non-Federal Share (10.00%)	\$40,929.80

## Award Information

### Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11340(13688)	\$409,298.00	90 %	\$368,368.20	5/16/2023

### Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

### Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
-----------	----------------	----------------	------------	--------------	--------------------

## Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

## Insurance

### Additional Information

4/7/2023

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 704844

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

Incident Period: 9/17/2017 to 11/15/2017

Total Public Assistance Amount: \$409,298.00 (CRC Gross Cost \$320,740.00 + Mitigation Amount \$88,558.00)

**COMMERCIAL INSURANCE INFORMATION**

Does the applicant have a Commercial Policy that extends coverage for this facility: Yes

Policies Issued by: Willis Towers Watson, Multinational Insurance Company and Mapfre

Policy Numbers: Willis Towers Watson (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP000318674-0, 88-CP-000318675-0, 88-CP-000318676-0, 88-CP-000318677-0)

Policy Period: From: 5/15/2017 To: 5/15/2018

Policy Limits: \$300,000,000.00

RCV or ACV: Replacement Cost Value

Deductible Amount \$25,000,000.00 each and every occurrence property damage and 30 days each and every occurrence business interruption in respect of Named Windstorm.

Does the Applicant's Commercial Policy extend coverage for the damage described in this project: No

**NUMBER OF DAMAGED LOCATIONS INCLUDED IN THIS PROJECT: (1)****Damaged Inventory (DI) #1297104:****FAASt [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20]**

Location: Distribution pole and conductor - Caguas Group 16-17-18-19-20

GPS Coordinates: [REDACTED]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$409,298.00 (CRC Gross Cost \$320,740.00 + Mitigation Amount \$88,558.00)

-

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

-

Reduction(s):

No insurance reduction will be applied to this project as coverage is not anticipated. An anticipated insurance reduction of \$193,746,436.00 was applied to FAAST project # 136271 for anticipated insurance proceeds for Hurricane Maria losses. For ease of reference, please see table of insurance allocations: "PREPA Allocation Plan – All Disasters" file.\_

-

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAAST [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] because the facility does not meet the definition of building, equipment, contents, or vehicle.

**Insurance Proceeds Statement:**

FEMA acknowledges that the Applicant is in negotiations with their insurance carrier at the time of the FEMA insurance review and might have received partial settlements. In accordance with 44 CFR §206.250-253, in the absence of an actual settlement, anticipated insurance recoveries will be deducted from this project based on Applicant's insurance policy limits. FEMA subsequently adjusts the eligible costs based on the actual amount of insurance proceeds the Applicant receives after a final settlement.

FEMA's Recovery Policy FP 206-086-1, Public Assistance Policy on Insurance (June 29, 2015), requires applicants to take reasonable efforts to recover insurance proceeds that it is entitled to receive from its insurers. FEMA will consider final insurance settlements that may be less than the insurance policy limits when an applicant demonstrates that it has taken reasonable efforts to recover insurance proceeds that it is entitled on a case-by-case basis.

**Standard Insurance Comments**

**FEMA Policy 206-086-1**

**PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)**

**A Duplication of Benefits.** FEMA cannot provide assistance for disaster-related losses that duplicate benefits available to an applicant from another source, including insurance.

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.
2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.
3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

**Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR**

**O&M Requirements**

There are no Obtain and Maintain Requirements on **FAAST [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)**.



## 406 Mitigation

There is no additional mitigation information on **FAAST**  
**[Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)**.

## Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

### EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Endangered Species Act (ESA)- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures. Conditions for the Puerto Rican Boa (*Epicrates inornatus*) are applicable for feeder 3401-01. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, [marelisa\\_rivera@fws.gov](mailto:marelisa_rivera@fws.gov).
- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to

Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.

- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. The applicant is responsible to ensure damaged transformers are handled, managed and disposed of in accordance with all federal and state laws and requirements. Downed electrical equipment may contain toxic and hazardous materials, such as polychlorinated biphenyls (PCBs), and may spill these materials if a rupture occurs. Applicant is responsible for screening transformers that do or may contain PCBs and the area where any related spill occurred. The applicant is then responsible to handle, manage, dispose of, or recycle damaged equipment and contaminated soil as appropriate. Where possible, temporary measures should be implemented to prevent, treat, or contain further releases or mitigate the migration of PCBs into the environment. If damaged equipment or material storage containers must be stored temporarily, containers should be placed on hardened surface areas, such as a concrete or an asphalt for no more than 90 days. Excavated contaminated material should be disposed of in accordance with federal and state laws and requirements. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material.

## EHP Additional Info

There is no additional environmental historical preservation on **FAAST [Distribution Pole and Conductor Repair - Caguas Group 16-17-18-19-20] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** MARTINEZ SANTIAGO, ISRAEL

**Reviewed On** 04/17/2023 11:03 AM PDT

#### Review Comments

FEMA final review completed. Project ready for recipient review.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 04/17/2023 11:58 AM PDT

#### Review Comments

Recipient review completed. Project is ready for applicant review.

## Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$409,298.00 for subaward number 11340 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

The Applicant understands that by participating in this pilot program they will be reimbursed for allowable costs in accordance with 2 CFR Part 200, and the reimbursement will not exceed the Fixed Cost Offer. The Applicant also understands that by agreeing to this Fixed Cost Offer, they will not receive additional funding related to the facilities or sites included in the subaward. The Applicant also acknowledges that failure to comply with the requirements of applicable laws and regulations governing assistance provided by FEMA and the PA Alternative Procedures Pilot Program Guidance (such as procurement and contracting; environmental and historic preservation compliance; and audit and financial accountability) may lead to loss of federal funding.

## Project Signatures

**Signed By** Miller, Thomas

**Signed On** 04/19/2023