

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

**NEPR**

**Received:**

**Feb 1, 2023**

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**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 Seven FEMA  
Approvals of Projects, Request for Confidential  
Treatment, and Supporting Memorandum of Law**

**MOTION SUBMITTING SEVEN 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 submit 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 ("March 26<sup>th</sup> Order"), 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. *See*

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

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

March 26<sup>th</sup> Order on pages 18-19.<sup>3</sup> It also directed PREPA to continue reporting to the Energy Bureau and FEMA within the next five years, the progress of all ongoing efforts related to the approval of the submitted projects not yet approved by the Energy Bureau. *See id.* at page 19.

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 30<sup>th</sup> 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 Distribution Streetlighting SOW<sup>4</sup> and Distribution Pole & Conductor Replacement SOW<sup>5</sup>. *See* August 30<sup>th</sup> Motion.

3. On September 22, 2021, the Energy Bureau issued a Resolution and Order ("September 22<sup>nd</sup> Order") in which it determined that most of the SOWs for T&D projects submitted by LUMA with the August 30<sup>th</sup> Motion were necessary to improve the system's reliability and approved such SOWs, which included the Distribution Streetlighting and Distribution Pole & Conductor Replacement SOWs. *See* September 22<sup>nd</sup> Order on pages 2 and 3

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<sup>3</sup> The Energy Bureau thereafter determined that this directive applied to PREPA and LUMA. *See* Resolution and Order of August 20, 2021, on page 3 in the instant case.

<sup>4</sup> The Distribution Streetlighting SOW encompassed streetlighting replacement projects throughout Puerto Rico which were later divided during the FEMA process into individual projects per Municipality and include the following: "659625 - FAASSt [Distribution Streetlighting -Dorado] (Distribution)"; "660227 - FAASSt [Hatillo Streetlight] (Distribution)"; and "660437 - FAASSt [Manati Streetlight] (Distribution)". *See* LUMA's *Motion Submitting Scope of Work and Updated List of Projects and Request for Confidentiality and Supporting Memorandum of Law* filed on November 16, 2022.

<sup>5</sup> Similarly, the Distribution Pole & Conductor Replacement SOW encompassed distribution pole and conductor replacement projects throughout Puerto Rico which were later divided during the FEMA process into regions and groups and included the following: "682172 - FAASSt [Distribution Pole and Conductor Repair - Arecibo Group 8] (Distribution)"; "682898 - FAASSt [Distribution Pole and Conductor Repair - Bayamón Group 6] (Distribution)"; "685477 - FAASSt Distribution Pole and Conductor Repair - Arecibo Group 6 (Distribution)"; and "682210 - FAASSt Distribution Pole and Conductor Repair - Mayagüez Group 9 (Distribution)". *See id.*

and Attachment A. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of these projects containing the costs obligated for each project, within ten (10) days of receiving such approval. See *id.* on page 3.

4. In compliance with the September 22<sup>nd</sup> Order, LUMA hereby submits copies of approvals by FEMA issued on January 24, 2023<sup>6</sup> of the following projects under the Distribution Streetlighting SOW or the Distribution Pole & Conductor Replacement SOW: “682172 - FAAS<sup>t</sup> [Distribution Pole and Conductor Repair - Arecibo Group 8] (Distribution)””; “682898 - FAAS<sup>t</sup> [Distribution Pole and Conductor Repair - Bayamón Group 6] (Distribution)””; “659625 - FAAS<sup>t</sup> [Distribution Streetlighting -Dorado] (Distribution)””; “660227 - FAAS<sup>t</sup> [Hatillo Streetlight] (Distribution)”; 660437 - FAAS<sup>t</sup> [Manati Streetlight] (Distribution)””; “685477 - FAAS<sup>t</sup> Distribution Pole and Conductor Repair - Arecibo Group 6 (Distribution)””; and “682210 - FAAS<sup>t</sup> Distribution Pole and Conductor Repair - Mayagüez Group 9 (Distribution)””. See **Exhibit 1**. The document in **Exhibit 1** states 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 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

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<sup>6</sup> It is important to note that knowledge of any FEMA approval for a T&D Project is acquired once FEMA makes the information available via its grant portal. This date is available on the FEMA Grants Portal under the Initial Date Obligated column.

of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, as amended by Resolution dated September 20, 2016.

## **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** contains 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>7</sup> In at least two proceedings on Data Security,<sup>8</sup> and Physical Security,<sup>9</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,

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<sup>7</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 Minigrad 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) *but see* Resolution and Order of February 12, 2021 reversing in part, grant of confidential designation).

<sup>8</sup> *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

<sup>9</sup> *In re Review of the Puerto Rico Electric Power Authority Physical Security Plan*, NEPR-MI-2020-0018.

and Resolution and Order of May 6, 2021, on Confidential Designation of Portions of LUMA's 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>10</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>11</sup>

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<sup>10</sup> Regarding the 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>11</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 this 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.

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(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 hallmarks of 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	682172 - FAASSt [Distribution Pole and Conductor Repair - Arecibo Group 8] (Distribution)	Pages 1, 2, 5 and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	February 1, 2023
Exhibit 1	682898 - FAASSt [Distribution Pole and Conductor Repair - Bayamón Group 6] (Distribution)	Pages 1, 2, 7 and 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	February 1, 2023
Exhibit 1	659625 - FAASSt [Distribution Streetlighting - Dorado] (Distribution)	Pages 1, 3, 5 and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	February 1, 2023
Exhibit 1	660227 - FAASSt [Hatillo Streetlight] (Distribution)	Pages 1, 3, 5 and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	February 1, 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	660437 - FAASSt [Manati Streetlight] (Distribution)	Pages 1, 4, 5 and 11,	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 1, 2023
Exhibit 1	685477 - FAASSt Distribution Pole and Conductor Repair - Arecibo Group 6 (Distribution)	Pages 1, 2, 6 and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 1, 2023
Exhibit 1	682210 - FAASSt Distribution Pole and Conductor Repair - Mayagüez Group 9 (Distribution)	Pages 1, 2, 6 and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 1, 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 the confidential **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 attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law, and Katiuska Bolaños-Lugo, kbolanos@diazvaz.law.

In San Juan, Puerto Rico, on this 1<sup>st</sup> day of February 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/ Laura T. Rozas  
Laura T. Rozas  
RUA Núm. 10,398  
[laura.rozas@us.dlapiper.com](mailto:laura.rozas@us.dlapiper.com)

*Exhibit 1*

*FEMA Approvals*

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	682172	<b>PW #</b>	11182	<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 - Arecibo Group 8] (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 #1241518; FAASt [JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN JOSE 8104-02, SAN JOSE 8104-05 and MANATI 13.2 KV 8404-02]**

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:** JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN JOSE 8104-02, SAN JOSE 8104-05 and MANATI 13.2 KV 8404-02
- **Facility Description:** The facilities are part of the feeder systems in the Arecibo Region. These interconnected and inter functional distribution feeders (sites) establish the electrical distribution system. The feeders all originate from a substation (start) and serve customers along a route to various locations (end). The coordinates represented by GPS end is the end of the mainline backbone of each feeder. These feeders are a subset of projects identified in the Distribution Feeders – Arecibo Short Term projects in the PREPA 10-Year Infrastructure Plan. 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:** 1980
- **Start GPS Latitude/Longitude:** [REDACTED]
- **End 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

1241518

### FAAST [JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN J







#### 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 – Arecibo Group 8 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 Arecibo 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
UTUADO PUEBLO	8101-01	5			3 Phase	4.16	More than 20 Years
UTUADO PUEBLO	8101-04	1			3 Phase	4.16	More than 20 Years
UTUADO PUEBLO	8101-05	4			3 Phase	4.16	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 8101-01 Scope:



Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	4	45ft H4 Concrete Pole(s)	4
40ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1

Feeder 8101-04 Scope:

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

Feeder 8101-05 Scope:

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

**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 Arecibo 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	Total	428 Public Assistance	406 Hazard Mitigation
Planning, Permits and Applications	\$5,380	\$5,380	\$0
Environmental Management	\$7,690	\$7,690	\$0
Engineering	\$23,132	\$18,573	\$4,559
Project Management	\$11,566	\$9,287	\$2,279
Distribution Line	\$231,324	\$185,734	\$45,590
Contingency	\$27,909	\$22,666	\$5,243

<b>Total Project Cost Estimate:</b>	<b>\$307,001</b>	<b>\$249,330</b>	<b>\$57,671</b>
FAASt Project # 682172 (428) Total			\$208,400
FAASt Project # 682172 (406) Total			\$57,671
FAASt A&E #335168 Total			\$40,930
<b>Total Cost</b>			<b>\$307,001</b>

Please refer to Appendix H for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$249,330.00**

**428 A&E Deduction (Global A&E FAASt 335168) -\$40,930.00**

**428 Project Total Cost: \$208,400.00**

For detailed cost estimate, please refers to document labeled: 682172-DR4339PR-Appendix H - Detail Cost Estimate - Arecibo Group 8 Rev0.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 682172-DR4339PR-Detailed SOW Arecibo Group 8 Rev0.pdf.
2. For reference documents Appendix A thru L
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).

## 406 HMP Scope

Project number: 682172

Damage #1241518; FAASt [Arecibo Group 8 - UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05.]

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

Location: Arecibo, Puerto Rico

(Start: [REDACTED], End: [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 #682172 (Distribution Critical Poles & Conductors Repair/Replacement).**

The Distribution Pole and Conductor Repair-Mayagüez Group 9 consists of 3 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05.

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 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.

**1.Feeder UTUADO PUEBLO 8101-01: 5EA.pole.**

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

Replace one (1) 45ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.

**2.Feeder UTUADO PUEBLO 8101-04 Scope: 1EA.poles.**

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

**3.Feeder UTUADO PUEBLO 8101-05 Scope: 4EA. Poles.**

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

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$45,590.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$12,081.35</u>
Hazard Mitigation Total Cost =	\$57,671.35

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

$HMR = (\text{Total Net Hazard Mitigation Cost} / \text{Project Net In-Kind Repair Cost}) \times 100$

$HMR = (\$45,590.00 / \$185,734.00) \times 100 = 24.55\%$

The cost of this Hazard Mitigation Proposal (HMP) is **24.55%** of the repair or restoration costs and is deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, \_\_\_ 15%Rule, **X** **100% Rule**, \_\_\_ BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost effective requirements.

**\*Cost effective calculation should be taken before CEF Factors, Soft Costs, or other Factors.**

**\*\* See the HMP Cost Estimate and Benefit Cost Analysis (BCA) for a more detailed breakdown of HMP costs and cost effectiveness calculation(s).**

**\*\*\*See Mitigation Profile Documents Tab in Grants Manager for complete version of this HMP and supporting documents (*HMP, HMP cost estimate, HMP Cost Effective Analysis, among others*).**

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 ( 3510 (A&E Deduction (Global A&E FAASSt 335168) Version 0))	1.00	Lump Sum	(\$40,930.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 ( 9001 (FAASSt Project 136271 Total Version 0))	1.00	Lump Sum	\$249,330.00	Uncompleted

CRC Gross Cost \$208,400.00

Total 406 HMP Cost \$57,671.35

Total Insurance Reductions \$0.00

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CRC Net Cost \$266,071.35

Federal Share (90.00%) \$239,464.22

Non-Federal Share (10.00%) \$26,607.13

## 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-11182(13196)	\$266,071.35	90 %	\$239,464.22	1/23/2023

### 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 #
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## 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



**12/27/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 682172

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: \$266,071.35 (CRC Gross Cost \$208,400.00 + Mitigation Amount \$57,671.35)

**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) #1241518:**

**FAASt [JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN JOSE 8104-02, SAN JOSE 8104-05 and MANATI 13.2 KV 8404-02]**

Location Description: JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN JOSE 8104-02, SAN JOSE 8104-05 and MANATI 13.2 KV 8404-02

GPS Coordinates: Start [REDACTED] to [REDACTED] End

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: \$266,071.35 (CRC Gross Cost \$208,400.00 + Mitigation Amount \$57,671.35)

-  
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 [JAYUYA II 8302-04, UTUADO PUEBLO 8101-01, UTUADO PUEBLO 8101-04, UTUADO PUEBLO 8101-05, SAN JOSE 8104-02, SAN JOSE 8104-05 and MANATI 13.2 KV 8404-02] 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 - Arecibo Group 8] (Distribution).

## 406 Mitigation

There is no additional mitigation information on **FAAST** [Distribution Pole and Conductor Repair - Arecibo Group 8] (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.
- 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. 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. 3. 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 - 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.
- NEPA Determination - 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.
- Endangered Species Act (ESA)- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures
- Executive Order 11988 - Floodplains - Conditions are only applicable for feeder 8101-01. 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) - Reptiles Conditions for the Puerto Rican Boa (*Epicrates inornatus*) are applicable for feeders 8101-01, 8101-04 and 8101-05. 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.

- Endangered Species Act (ESA) - Birds Conditions for the Puerto Rican parrot (*Amazona vittata*) and Puerto Rican broad-winged hawk (*Buteo platypterus*) are applicable for feeders 8101-01, 8101-04 and 8101-05. 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 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.

## EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Distribution Pole and Conductor Repair - Arecibo Group 8] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 01/04/2023 8:43 AM EST

#### Review Comments

Approved for obligation- Recipient is responsible for compliance with applicable requirements...

### Recipient Review

**Reviewed By** Cintron, Jesus

**Reviewed On** 01/05/2023 3:45 PM EST

#### Review Comments

Review Completed. Pending Applicant Final 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 \$266,071.35 for subaward number 11182 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**   01/06/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	682898	<b>PW #</b>	11183	<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 - Bayamón Group 6] (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 #429509; FAASt [Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08]**

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 - Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08
- **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:** 1980
- **Start GPS Latitude/Longitude:** [REDACTED]
- **End 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

# FAAST [Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Gra

## 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 6 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.

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
Guaynabo	1901-01	2	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 years
Guaynabo	1901-04	15	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 years
Grana PDS	1907-04	3	██████████ ██████████	██████████ ██████████	3 Phase	13.2	More than 20 years
Grana PDS	1907-05	1	██████████ ██████████	██████████ ██████████	3 Phase	13.2	More than 20 years
Grana PDS II	1909-08	3	██████████ ██████████	██████████ ██████████	3 Phase	13.2	19 Years
Unibon	9501-01	3	██████████ ██████████	██████████ ██████████	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 1901-01 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 1901-04 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
35ft Steel Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Wood Pole(s) 50ft Concrete Pole(s)	2	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s) 30ft Wood Pole(s)	2	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s) 50ft Concrete Pole(s)	2	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s) 50ft Concrete Pole(s)	2	60ft H8 Concrete Pole(s)	1
40ft Concrete Pole(s) 50ft Concrete Pole(s)	2	50ft H6 Concrete Pole(s)	1

50ft Steel Pole(s)	1	50ft H6 Concrete Pole(s)	1
60ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
60ft Wood Pole(s)	1	50ft Galvanized Steel S8 pole(s)	1

Feeder 1907-04 Scope:

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

Feeder 1907-05 Scope:

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

Feeder 1909-08 Scope:

Remove	Quantity	Install	Quantity
40ft Concrete Pole(s)	3	50ft H4 Concrete Pole(s)	3

Feeder 9501-01 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft Galvanized Steel S8 pole(s)	1
45ft Concrete 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 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 Arecibo 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)	23
60ft Galvanized Steel S8 pole(s)	1

#### 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	\$14,526.00	\$14,526 .00	\$0 .00
Environmental Management	\$20,763.00	\$20,763.00	\$0.00
Engineering	\$65,256.40	\$56,663.50	\$8,592.90
Project Management	\$32,628.20	\$28,3321.75	\$4,296.45
Distribution Line	\$652,564.00	\$566,635.00	\$85,929.00
Contingency	\$78,573.76	\$68,691.93	\$9,881.84
<b>Total Project Cost Estimate:</b>	<b>\$864,311.36</b>	<b>\$755,611.18</b>	<b>\$108,700.19</b>
FAASt Project # 682898 (428) Total			\$635,326.93
FAASt Project # 682898 (406) Total			\$108,700.19
FAASt A&E #335168 Total			\$120,284.25
<b>Total Cost</b>			<b>\$864,311.36</b>

Please refer to Appendix H for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$755,611.18**

**428 A&E Deduction (Global A&E FAAsT 335168) -\$120,284.25**

**428 WTBC Project Total Cost: \$635,326.93**

For detailed cost estimate, please refer to document labeled: 682898-DR4339PR-Appendix H - Detail Cost Estimate - Bayamon Group 6 Rev1.xlsx.

**Project Notes:**

1. Refer to detailed SOW provided in document 682898-DR4339PR-Detailed SOW Bayamon Group 6 Rev1.pdf
2. For reference, documents Appendix A thru L
3. For EHP Requirements, refer to pages 5 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).

**Project number:** 682898; FAAsT [Distribution Pole and Conductor Repair - Bayamón Group 6] (Distribution)

**Damage #** D#429509; FAAsT [Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08].

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

**Location:** Bayamon, 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 #682898 (Distribution Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair - Bayamón Group 6 consists of 6# interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08, Unibon 9501-01.

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 by increasing the wind tolerance of all materials to +160mph. The FAAS 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 PAPPV V3.1.

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

1. Feeder 1901-01 Scope (2ea):

- Replace two (2) 50ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.

1. Feeder 1901-04 Scope (14ea):

- Replace five (5) 50ft concrete H4 poles by five (5) 50ft galvanized steel S8 poles.
- Replace eight (8) 50ft concrete H6 poles by eight (8) 50ft galvanized steel S8 poles.
- Replace one (1) 60ft concrete H8 poles by one (1) 60ft galvanized steel S8 poles.

*Note: PA will install 1 EA 50ft S8 by MOR and 5EA poles were eliminated.*

1. Feeder 1907-04 Scope (2ea):

- Replace two (2) 50ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.

*Note: PA will install 1 EA 50ft S8 by MOR.*

1. Feeder 1907-05 Scope (1ea):

- Replace one (1) 50ft concrete H6 poles by one (1) 50ft galvanized steel S8 poles.

1. Feeder 1909-08 Scope (3ea):

- Replace three (3) 50ft concrete H4 poles by three (3) 50ft galvanized steel S8 poles.

1. Feeder 9501-01 Scope (2ea):

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

*Note: PA will install 1 EA 50ft S8 by MOR.*

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 85,929.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 22,771.19</u>
Hazard Mitigation Total Cost =	<b>\$ 108,700.19</b>

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#### HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$566,635.00

Net Cost of 406 HMP per DI: \$85,929.00

HMR = (Total Net Hazard Mitigation Cost / Project Net In-Kind Repair Cost) x 100

HMR = (\$85,929.00 / \$566,635.00) x 100 = 15.16% (< 100% and Appendix J).

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost

effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (PREPA FAASt Global A&E 335168))	1.00	Lump Sum	(\$120,284.25)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (PREPA FAASt Project 136271))	1.00	Lump Sum	\$755,611.18	Uncompleted

CRC Gross Cost \$635,326.93

Total 406 HMP Cost \$108,700.19

Total Insurance Reductions \$0.00

CRC Net Cost \$744,027.12

Federal Share (90.00%) \$669,624.41

Non-Federal Share (10.00%) \$74,402.71



## 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-11183(13199)	\$744,027.12	90 %	\$669,624.41	1/23/2023

### 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 #
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## 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

**12/27/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 682898

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: \$744,027.12 (CRC Gross Cost \$635,326.93 + Mitigation Amount \$108,700.19)

**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) #429509:**

**FAASt [Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08]**

Location Description: Distribution - Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08

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: \$744,027.12 (CRC Gross Cost \$635,326.93 + Mitigation Amount \$108,700.19)

-

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.

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Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAAST [Unibon 9501-01, Guaynabo 1901-01, Guaynabo 1901-04, Grana PDS 1907-04, Grana PDS 1907-05, Grana PDS II 1909-08] 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 - Bayamón Group**  
**6] (Distribution).**

## 406 Mitigation

There is no additional mitigation information on **FAAST**  
**[Distribution Pole and Conductor Repair - Bayamón Group**  
**6] (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 - Condition are only applicable for feeders 1901-04 and 1907-04. 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. Reptiles Conditions for the Puerto Rican Boa (*Epicrates inornatus*) are applicable for feeders 1901-01 and 1901-04. 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 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. 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. 3. 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 - 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.
- NEPA Determination - 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 - Bayamón Group 6] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 01/04/2023 2:21 PM EST

#### Review Comments

Approved for obligation - Applicant is responsible to comply with all regulatory requirements

### Recipient Review

**Reviewed By** Cintron, Jesus

**Reviewed On** 01/05/2023 4:25 PM EST

#### Review Comments

Review Completed. Pending Applicant Final 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 \$744,027.12 for subaward number 11183 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** 01/06/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	659625	<b>PW #</b>	11099	<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 - Dorado] (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 #1198183; FAASt [Distribution Streetlighting - Dorado]

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 Streetlighting - Dorado
- **Facility Description:** The Dorado municipality has a total of 5572 luminaries of which damage was estimated for 70% of these luminaries.
  - **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:** 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

1198183 **FAASt [Distribution Streetlighting - Dorado]**



## **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 Dorado project (Dorado 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 Dorado.

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 Dorado according to the priorities and findings after conducting the assessments.

**Physical Address** Dorado, Puerto Rico

**Coordinates** 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.<sup>1</sup>
- 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.

<sup>1</sup> The poles that will require replacement of the existing foundation can be found in Appendix G in the tab "Global Initial Scope of Work," column AW (Concrete Pole Base (40ft)), filter by values equal to 1. This represents the same information as Appendix K, column O (Concrete Foundation), filter by values equal to YES. Further, the dimensions for the foundations are 10 feet deep by 3 feet in diameter. The depth of the foundation can be found in Appendix K, column D (Soil area and depth impact).

### 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 Bayamón Warehouse, [REDACTED]. 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.

2 Refer to tab "Global Initial Scope of Work" column M (Fix Underground Circuit), filter by values equal to 1. Coordinates are identified in column D (Latitude) and column E (Longitude).

3 Refer to column M (Earthwork/Prep work Req'd), filter by values equal to YES. Coordinates are identified in column F (Latitude) and column G (Longitude).

### 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	•33ft high and installed to a depth of 5ft •Wind resistance 90mph	•39ft high and installed to a depth of 9ft •Wind resistance 160mph	Increasing pole strength to withstand extreme weather events and avoid pole tilting.

Aluminum poles	•30ft high •Wind resistance 90mph	•40ft high •Wind resistance 160mph	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.

<b>Project Cost Estimate</b>	<b>428 Estimate</b>	<b>406 Estimate</b>
Planning, Permits and Applications <b>(FAASt 335168)</b>	\$10,241	\$559
Environmental Management <b>(FAASt 335168)</b>	\$204,212	\$11,148
Project Management <b>(FAASt 335168)</b>	\$1,053,029	\$57,484
Engineering <b>(FAASt 335168)</b>	\$1,764,267	\$96,309
Site Management (3%) <b>(FAASt 335168)</b>	\$631,817	\$34,490
Quality Inspections (5%) <b>(FAASt 335168)</b>	\$1,053,029	\$57,484
Construction	\$21,060,570	\$1,149,672
Contingency	\$1,804,402	\$98,500
<b>Subtotal</b>	<b>\$27,581,566</b>	<b>\$1,505,645</b>
<b>Total Project Estimate</b>		<b>\$29,087,212</b>
<b>428 FAASt Project 659623</b>		<b>\$22,864,972</b>
<b>406 FAASt Project 659623</b>		<b>\$1,505,645</b>
<b>FAASt Project A&amp;E 335168</b>		<b>\$4,716,594</b>

**Work To Be Completed (WTBC): \$27,581,566**

**A&E Deduction (Global A&E FAASt 335168) - \$4,716,594**

**Project Total Cost: \$27,581,566 - \$4,716,594 (Global A&E FAASt 335168) = \$22,864,972**

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

**Project Notes:**

1. The Applicant provided a SOW and cost estimate in Grants Manger which has been modified after email correspondence received from PDMG which clarified project cost estimate. Refer to: 659625 - DR4339PR – Clarification.
2. Refer to detailed SOW provided in document 659625-DR4339PR-SOW-Distribution Streetlighting - Dorado\_Rev2.pdf.
3. For reference documents Appendix A thru M, see file labeled: 659625-DR4339PR-SOW-Distribution Streetlighting - Dorado - Appendix A-M.zip
4. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.
5. This project is part of a FAASt (donor) project, [136271] MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt.
6. 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:** 659625; FAASt [Dorado Streetlight] (Distribution)

**Damage #1198183; FAASt [Distribution Streetlighting - Dorado]**

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

**Location:** Dorado, 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 Dorado Municipality, PREPA has a total of 4,284~~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 FAAS 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 (2,028ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (114ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (222ea) 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 (6ea) 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 (111ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (26ea) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (99ea) 33ft octagonal concrete poles by (99ea) 39ft octagonal concrete poles.
- Replace (374ea) 35ft galvanized poles by (374ea) 35ft S3.5 galvanized poles.
- Replace (254ea) 30ft aluminum poles by (254ea) 40ft aluminum poles.
- Replace (113ea) 30ft aluminum poles breakaway bases by (113ea) 40ft aluminum poles breakaway bases.
- Replace (254ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (254ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 1,149,672.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 355,973.00</u>
Hazard Mitigation Total Cost =	<b>\$ 1,505,645.00</b>

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

Eligible Cost of PA repair Scope of Work per DI: \$16,327,425.32

Net Cost of 406 HMP per DI: \$1,149,672.00

HMR = (Total Net Hazard Mitigation Cost / Project Net In-Kind Repair Cost) x 100

HMR = (\$1,149,672.00 / \$16,327,425.00) x 100 = 7.04% (< 15% and Appendix J).

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary

Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (FAASt Global A&E 335168))	1.00	Lump Sum	(\$4,716,594.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (FAASt Project 136271))	1.00	Lump Sum	\$27,581,566.00	Uncompleted

CRC Gross Cost \$22,864,972.00

Total 406 HMP Cost \$1,505,645.00

Total Insurance Reductions \$0.00

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CRC Net Cost \$24,370,617.00

Federal Share (90.00%) \$21,933,555.30

Non-Federal Share (10.00%) \$2,437,061.70

## 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-11099(13193)	\$24,370,617.00	90 %	\$21,933,555.30	1/23/2023

### 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 #
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## 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

**11/18/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 659625

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: \$24,370,617.00 (CRC Gross Cost \$22,864,972.00 + Mitigation Amount \$1,505,645.00)

**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) #1198183:**

**FAASt [Distribution Streetlighting - Dorado]**

Location Description: Distribution Streetlighting - Dorado

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: \$24,370,617.00 (CRC Gross Cost \$22,864,972.00 + Mitigation Amount \$1,505,645.00)

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 - Dorado] 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 - Dorado] (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST**  
**[Distribution Streetlighting - Dorado] (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 1-6 for Puerto Rican Boa (D#1198183): 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 10-22 for *Caretta caretta*, *Chelonia mydas*, *Dermochelys coriacea*, *Eretmochelys imbricata* (D#1198183): 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](mailto: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](mailto:takereport.nmfs@noaa.gov) and [SAJ-RD-Enforcement@usace.army.mil](mailto: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, [marcelisa\\_rivera@fws.gov](mailto:marcelisa_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) - Conditions for 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. 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 Work Zone 5, specifically to the areas within Barrio Palmas, along PR-869, and in the Vista del Morro community (See Enclosure 3). The Subrecipient and/or Subrecipient's contractor must follow the attached archaeological monitoring plan. d. 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. e. 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 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.
- NEPA Determination - 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.
- NEPA Determination - 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 [Distribution Streetlighting - Dorado] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 01/04/2023 7:58 AM EST

#### Review Comments

Approved for obligation recipient is responsible to comply with all requirements.

### Recipient Review

**Reviewed By** Cintron, Jesus

**Reviewed On** 01/05/2023 3:43 PM EST

#### Review Comments

Review Completed. Pending Applicant Final 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 \$24,370,617.00 for subaward number 11099 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** 01/06/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	660227	<b>PW #</b>	11095	<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 [Hatillo 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 #1201741; FAASt Distribution Streetlight Hatillo

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

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#### General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Streetlight Hatillo
- **Facility Description:** According to the legacy database, the Hatillo municipality has a total of 6090 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:** 1960
- **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



**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 Hatillo project (Hatillo 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 Hatillo.

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 Hatillo according to the priorities and findings after conducting the assessments.

**Physical Address** Hatillo, Puerto Rico

**Coordinates** 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.<sup>1</sup> • 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.

<sup>1</sup> The poles that will require replacement of the existing foundation can be found in Appendix G in the tab "Global Initial Scope of Work," column AW (Concrete Pole Base (40ft)), filter by values equal to 1. This represents the same information as Appendix K, column O (Concrete Foundation), filter by values equal to YES. Further, the dimensions for the foundations are 10 feet deep by 3 feet in diameter. The depth of the foundation can be found in Appendix K, column D (Soil area and depth impact).

- 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, [REDACTED]. 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.

2 Refer to tab "Global Initial Scope of Work" column M(Fix Underground Circuit), filter by values equal to 1. Coordinates are identified in column D (Latitude) and column E (Longitude).

3 Refer to column M(Earthwork/Prep work Req'd), filter by values equal to YES. Coordinates are identified in column F (Latitude) and column G (Longitude).

#### 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:

<b>Material Item</b>	<b>Consensus-based codes and standards</b>	<b>Hazard Mitigation Design</b>	<b>Justification/Benefit</b>
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.

<b>Project Cost Estimate</b>	<b>428 Estimate</b>	<b>406 Estimate</b>
Planning, Permits and Applications	\$47,349.89	\$3,650
Environmental Management	\$296,206.06	\$22,834
Project Management	\$853,637.62	\$65,805
Engineering	\$1,754,846.68	\$135,278
Construction	\$18,438,572.54	\$1,421,393
Contingency	\$1,497,342.89	\$115,427
<b>Subtotal</b>	<b>\$22,887,955.68</b>	<b>\$1,764,387.70</b>
<b>Total Project Estimate</b>		<b>\$24,652,343.38</b>
<b>428 FAASSt Project 660227</b>		<b>\$18,570,095.25</b>
<b>406 FAASSt Project 660227</b>		<b>\$1,764,387.70</b>
<b>FAASSt Project A&amp;E 335168</b>		<b>\$4,317,860.43</b>

**428 Work To Be Completed (WTBC): \$22,887,955.68**

**428 A&E Deduction (Global A&E FAASSt 335168) -\$4,317,860.43**

**428 Project Total Cost: \$18,570,095.25**

For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Hatillo Municipality CRC 14 Nov 22.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 660227-DR4339PR-Distribution Streetlighting - DSOW-Aibonito\_Rev2.pdf.

2. For reference documents Appendix A thru M, see files labeled: 660227-Distribution Streetlighting-Hatillo-Appendix A-M.zip
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:** 660227; FAASt [Hatillo Streetlight] (Distribution)

**Damage #1201741; FAASt Distribution Streetlight Hatillo**

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

**Location:** Hatillo, 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 Hatillo Municipality, PREPA has a total of 5,599ea 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 (3,538ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (118ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (111ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (53ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (38ea) 33ft octagonal concrete poles by (38ea) 39ft octagonal concrete poles.

- Replace (1,085ea) 35ft galvanized poles by (1,085ea) 35ft S3.5 galvanized poles.
- Replace (23ea) 30ft aluminum poles by (23ea) 40ft aluminum poles.
- Replace (26ea) 30ft aluminum poles breakaway bases by (26ea) 40ft aluminum poles breakaway bases.
- Replace (23ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (23ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

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

Total Net Hazard Mitigation Cost (Base Cost) = \$ 1,316,105.06

+ HM (Applicant A&E, Management & General Conditions) = \$ 448,282.64

Hazard Mitigation Total Cost = **\$ 1,764,387.70**

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**HMP Cost-Effectiveness Calculations:**

Eligible Cost of PA repair Scope of Work per DI: \$13,484,371.53

Net Cost of 406 HMP per DI: \$1,316,105.06

$HMR = (Total\ Net\ Hazard\ Mitigation\ Cost / Project\ Net\ In-Kind\ Repair\ Cost) \times 100$

$HMR = (\$1,316,105.06 / \$13,484,371.53) \times 100 = 9.76\% (< 15\% \text{ and Appendix J}).$

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 ( 3510 (A&E Deduction (Global A&E FAASSt 335168) Version 0))	1.00	Lump Sum	(\$4,317,860.43)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 ( 9001 (FAASSt Project 660227 Total Version 0))	1.00	Lump Sum	\$22,887,955.68	Uncompleted

CRC Gross Cost \$18,570,095.25

Total 406 HMP Cost \$1,764,387.70

Total Insurance Reductions \$0.00

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CRC Net Cost \$20,334,482.95

Federal Share (90.00%) \$18,301,034.66

Non-Federal Share (10.00%) \$2,033,448.29

## 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-11095(13198)	\$20,334,482.95	90 %	\$18,301,034.66	1/23/2023

### 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 #
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## 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.
- 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

11/18/2022

#### GENERAL INFORMATION

Event: DR4339-PR



Project: SP 660227

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: \$20,334,482.95 (CRC Gross Cost \$18,570,095.25 + Mitigation Amount \$1,764,387.70)

### **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) #1201741:**

##### **FAASt Distribution Streetlight Hatillo**

Location Description: Streetlight Hatillo

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: \$20,334,482.95 (CRC Gross Cost \$18,570,095.25 + Mitigation Amount \$1,764,387.70)

-

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.\_

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Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt Distribution Streetlight Hatillo 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 [Hatillo Streetlight] (Distribution)**.

**406 Mitigation**

There is no additional mitigation information on **FAASt [Hatillo 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. Conservation Measures for Puerto Rican Boa: 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.

- 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.
- NEPA Determination - 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.
- NEPA Determination - 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 [Hatillo Streetlight] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 12/15/2022 7:14 AM EST

#### Review Comments

Approved for obligations - Applicant is responsible to comply with all requirements.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 12/15/2022 3:11 PM EST

#### 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 \$20,334,482.95 for subaward number 11095 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** 12/16/2022

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	660437	<b>PW #</b>	11097	<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 [Manati 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 #1201738; FAASt Distribution Streetlighting - Manati (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:** Streetlighting - Manati
- **Facility Description:** According to the legacy database, the Manatí municipality has a total of 6242 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:** 1960
- **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

**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 Manatí project (Manatí 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 Manatí.

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 Manatí according to the priorities and findings after conducting the assessments.

Physical Address: Manatí, Puerto Rico

Coordinates: 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 pole's 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. **See Project Note 4.**

- 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 G and Appendix K. **See Project Notes 5 & 6.**
- 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 G and Appendix K. **See Project Notes 5 & 6.**
- 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, [REDACTED]. 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.

Planning Permits & Applications (FAASt 335168)	\$ 48,678
Environmental Management (FAASt 335168)	\$ 304,513
Project Management (FAASt 335168)	\$ 1,245,811
Engineering (FAASt 335168)	\$ 2,229,336
Site Management (FAASt 335168)	\$ 747,486
Quality Inspections (FAASt 335168)	\$ 1,245,811
Construction	\$ 24,916,216
Contingency_____	\$ 2,151,650
<b>Total</b>	<b>\$ 32,889,501</b>

**Work To Be Completed (WTBC):** **\$32,889,501**

**A&E Deduction (Global A&E FAASt 335168):** **-\$5,821,636**

**Project Total Cost:** **\$27,067,865**

Please refer to Appendix G for Cost Estimate Details.

**Project Notes:**

1. As confirmed by the Applicant, the project costs are as described in the Appendix G - Cost Estimate Manatí Municipality. For the project costs clarification refer to document labeled: *"660437 DR4339PR-Manatí Streetlight Project (Distribution) Cost Clarification on 11.14.22 .pdf."*
2. For a detailed SOW, please refer to document labeled: *"660437 DR4339PR Distribution Streetlighting Manatí Rev 1.docx."*
3. For reference documents Appendix A thru M, see file labeled: *"660437-DR4339PR-Distribution Streetlighting-Manatí-Appendix A-M.zip."*
4. The poles that will require replacement of the existing foundation can be found in Appendix G in the tab "Global Initial Scope of Work," column AW (Concrete Pole Base (40ft)), filter by values equal to 1. This represents the same information as Appendix K, column O (Concrete Foundation), filter by values equal to YES. Further, the dimensions for the foundations are 10 feet deep by 3 feet in diameter. The depth of the foundation can be found in Appendix K, column D (Soil area and depth impact).
5. Refer to tab "Global Initial Scope of Work" column M (Fix Underground Circuit), filter by values equal to 1. Coordinates are identified in column D (Latitude) and column E (Longitude).
6. Refer to column M (Earthwork/Prep work Req'd), filter by values equal to YES. Coordinates are identified in column F (Latitude) and column G (Longitude).
7. This project is part of a FAASt project, please reference project 136271.

**406 HMP Scope**

**Project number:** 660437; FAASt [Manatí Streetlight] (Distribution)

**Damage # 1201738; FAASt Distribution Streetlighting - Manatí (Distribution)**

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

**Location:** Manatí, 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 Manatí Municipality, PREPA has a total of 5,683ea 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 PAPPV V3.1.

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

- Replace (3,244ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (173ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (288ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (5ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (6ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (7ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (87ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (116ea) 33ft octagonal concrete poles by (116ea) 39ft octagonal concrete poles.
- Replace (797ea) 35ft galvanized poles by (797) 35ft S3.5 galvanized poles.
- Replace (79ea) 30ft aluminum poles by (79ea) 40ft aluminum poles.
- Replace (66ea) 30ft aluminum poles breakaway bases by (66ea) 40ft aluminum poles breakaway bases.
- Replace (79ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (79ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$1,188,605.00
+ HM (Applicant A&E, Management & General Conditions) =	\$ 380,359.00
Hazard Mitigation Total Cost =	<b>\$1,568,964.00</b>

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

Eligible Cost of PA repair Scope of Work per DI: \$15,672,799.00

Net Cost of 406 HMP per DI: \$1,188,605.00

$HMR = (Total\ Net\ Hazard\ Mitigation\ Cost / Project\ Net\ In-Kind\ Repair\ Cost) \times 100$

$HMR = (\$1,188,605.00 / \$15,672,799.00) \times 100 = 7.58\% (< 15\% \text{ and Appendix J}).$

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (A&E Deduction from Project 335168 - FAASt A&E PREPA))	1.00	Lump Sum	(\$5,821,636.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (Total Cost Estimate - FAASt Project 136271))	1.00	Lump Sum	\$32,889,501.00	Uncompleted

CRC Gross Cost \$27,067,865.00

Total 406 HMP Cost \$1,568,964.00

Total Insurance Reductions \$0.00

CRC Net Cost \$28,636,829.00

Federal Share (90.00%) \$25,773,146.10

Non-Federal Share (10.00%) \$2,863,682.90

## 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-11097(13197)	\$28,636,829.00	90 %	\$25,773,146.10	1/23/2023

### 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 #
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## 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

**11/18/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 660437

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: \$28,636,829.00 (CRC Gross Cost \$27,067,865.00 + Mitigation Amount \$1,568,964.00)

**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) #1201738:**

**FAASt Distribution Streetlighting - Manati (Distribution)**

Location Description: Streetlighting - Manati

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: \$28,636,829.00 (CRC Gross Cost \$27,067,865.00 + Mitigation Amount \$1,568,964.00)

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 - Manati (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 [Manati Streetlight] (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST [Manati 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) - Damage #1201738 Multiple pole sites - Conservation Measures for Puerto Rican Boa: 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 boasighting 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) - Damage #1201738 Multiple pole sites - Conservation Measures for Puerto Rican parrot: 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. 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.
- 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.
- NEPA Determination - 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.
- NEPA Determination - 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 [Manati Streetlight] (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** Soto Toro, Hildelix L.

**Reviewed On** 12/16/2022 7:53 AM EST

#### Review Comments

Approved for obligation- Applicant is responsible for compliance with all applicable laws, regulations, policy, and guidance applicable to FEMA's Public Assistance Program.

### Recipient Review

**Reviewed By** Salgado, Gabriel

**Reviewed On** 12/16/2022 8:56 AM EST

#### 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 \$28,636,829.00 for subaward number 11097 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** 12/16/2022

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	685477	<b>P/W #</b>	11171	<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 - Arecibo Group 6 (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 #1246758; FAASt Distribution Pole and Conductor Repair - Arecibo Group 6

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 Repair - Arecibo Group 6
- **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:** 1980
- **Start GPS Latitude/Longitude:** [REDACTED]
- **End 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

#### 1246758 FAASt Distribution Pole and Conductor Repair - Arecibo Group 6

#### 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 – Arecibo Group 6 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 Arecibo 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
Pajuil	7702-02	2	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
Pajuil	7702-03	6	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
San Daniel	8013-01	7	██████████ ██████████	██████████ ██████████	3 Phase	13.2	More than 20 Years
Quebradillas	7402-01	0	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
Quebradillas	7402-05	0	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
Guajataca	7403-02	0	██████████ ██████████	██████████ ██████████	3 Phase	4.16	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”, followed by descriptions of each work type specific to the Scope of Work for this group.

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

Feeder 7702-02 Scope:

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

Feeder 7702-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	45ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	3	45ft H4 Concrete Pole(s)	3
45ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 8013-01 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Concrete Pole(s)	1	45ft H4 Concrete Pole(s)	1
65ft Concrete Pole(s)	1	65ft H6 Concrete Pole(s)	1
65ft Concrete Pole(s)	4	70ft Galvanized Steel S8 Pole(s)	4

Feeder 7402-01 Scope:

- No 428 PA work identified

Feeder 7402-05 Scope:

- No 428 PA work identified

Feeder 7403-02 Scope:

- No 428 PA work identified

For detailed structures coordinates please refers to document labeled: 685477-DR4339PR-Appendix G - Structure Coordinates - Arecibo Group 6 Rev0.pdf

**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 Arecibo 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	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)	\$36,288	\$31,679	\$4,609
Project Management (FAASt 335168)	\$18,144	\$15,839	\$2,305
Distribution Line	\$362,877	\$316,787	\$46,090
Contingency	\$43,691	\$38,391	\$5,300
<b>Total Project Cost Estimate:</b>	<b>\$480,605</b>	<b>\$422,301</b>	<b>\$58,304</b>
FAASt Project # 685477 (428) Total			\$355,178
FAASt Project # 685477 (406) Total			\$58,304
FAASt A&E #335168 Total			\$67,123
<b>Total Cost</b>			<b>\$480,605</b>

Please refer to Appendix H for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$422,301**

**428 A&E Deduction (Global A&E FAASt 335168): -\$67,123**

**428 Project Total Cost: \$355,178**

For detailed cost estimate, please refers to document labeled:685477-DR4339PR-Appendix H - Detail Cost Estimate - Arecibo Group 6 Rev1.xlsx

## Project Notes:

1. Refer to detailed SOW provided in document 685477-DR4339PR-Detailed SOW Arecibo Group 6 Rev1.pdf.
2. For reference documents Appendix A thru L
3. For EHP Requirements, refer to pages 6 to 7 of the detailed SOW and reference documents: Appendix J & K.
4. This project is part of a FAAST project, please reference project 136271.
5. 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:** 685477; FAAST Distribution Pole and Conductor Repair - Arecibo Group 6, (Distribution)

**Damage #1246758;** FAAST [Pajuil 7702-02, Pajuil 7702-03, San Daniel 8013-01, Quebradillas 7402-01, Quebradillas 7402-05, Guajataca 7403-02].

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

**Location:** Arecibo, 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 #685477 (Distribution Poles & Conductors Repair - Arecibo Group 6).

The Distribution Pole and Conductor Repair-Arecibo Group 6, consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: Pajuil 7702-02, Pajuil 7702-03, San Daniel 8013-01, Quebradillas 7402-01, Quebradillas 7402-05, Guajataca 7403-02.

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 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 PAPPV V3.1.

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

#### 1. Feeder 7702-02 Scope (2ea):

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

1. Feeder 7702-03 Scope (6ea):

- Replace six (6) 45ft concrete H4 poles by six (6) 50ft galvanized steel S8 poles.

1. Feeder 8013-01 Scope (7ea):

- Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
- Replace one (1) 65ft concrete pole by one (1) 65ft concrete H6 pole. No 406 Mitigation work identified at this time for this item.
- Replace four (4) 65ft concrete H6 poles by four (4) 70ft galvanized steel S8 poles. As discussed, and agreed in previous meetings, the 70ft galvanized steel S8 pole is cheaper than the 65ft H6 concrete pole. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

1. Feeder 7402-01 Scope (0ea):

- No 406 Mitigation work identified at this time.

1. Feeder 7402-05 Scope (0ea):

- No 406 Mitigation work identified at this time.

1. Feeder 8014-08 Scope (0ea):

- No 406 Mitigation work identified at this time.

-

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 46,090.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 7,214.00</u>
Hazard Mitigation Total Cost =	<b>\$ 58,304.00</b>

-

**HMP Cost-Effectiveness Calculations:**

Eligible Cost of PA repair Scope of Work per DI: \$187,212.00

Net Cost of 406 HMP per DI: \$46,090.00

$HMR = (Total\ Net\ Hazard\ Mitigation\ Cost / Project\ Net\ In-Kind\ Repair\ Cost) \times 100$

$HMR = (\$46,090.00 / \$187,212.00) \times 100 = 24.62\% (< 100\% \text{ Appendix J}).$

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## 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	(\$67,123.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (9001 (Contract (Total Cost Estimate - FAASSt 136271)))	1.00	Lump Sum	\$422,301.00	Uncompleted

CRC Gross Cost \$355,178.00

Total 406 HMP Cost \$58,304.00

Total Insurance Reductions \$0.00

CRC Net Cost \$413,482.00

Federal Share (90.00%) \$372,133.80

Non-Federal Share (10.00%) \$41,348.20

## 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-11171(13195)	\$413,482.00	90 %	\$372,133.80	1/23/2023

### 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 #
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## 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

**12/29/2022**

No adjustments to be made to the previous insurance coverage determination, no revisions to narrative needed, updated applicant tracker if needed, providing administrative function and forwarding project for completion.

Olga Renta, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR

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**12/20/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 685477

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: \$413,482.00 (CRC Gross Cost \$355,178.00 + Mitigation Amount \$58,304.00)

**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) #1246758:**

## FAAST Distribution Pole and Conductor Repair - Arecibo Group 6

Location Description: Distribution Pole and Conductor Repair - Arecibo Group 6

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: \$413,482.00 (CRC Gross Cost \$355,178.00 + Mitigation Amount \$58,304.00)

-

### 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 - Arecibo Group 6 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 - Arecibo Group 6 (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST Distribution Pole and Conductor Repair - Arecibo Group 6 (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 feeders 7702-02, 7702-03 & 8013-01. 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 #: 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.

- 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. 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. 3. 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 - 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.
- NEPA Determination - 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.
- 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.

## EHP Additional Info

There is no additional environmental historical preservation on **FAASt Distribution Pole and Conductor Repair - Arecibo Group 6 (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 01/04/2023 2:46 PM EST

#### Review Comments

Approved for obligation - Applicant is responsible to comply with all regulatory requirements

### Recipient Review

**Reviewed By** Cintron, Jesus

**Reviewed On** 01/05/2023 4:25 PM EST

#### Review Comments

Review Completed. Pending Final 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 \$413,482.00 for subaward number 11171 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** 01/06/2023

## Department of Homeland Security Federal Emergency Management Agency

### General Info

<b>Project #</b>	682210	<b>PW #</b>	11169	<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 - Mayagüez Group 9 (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 #1241499; FAASt Distribution Pole and Conductor Repair - Mayagüez Group 9 (Moca - 7101-03, CAPA 7103-01, 7103-04, Moca II -7104-06, San Sebastian 1 -7801-01, 7801-03)**

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 REPAIR - MAYAGÜEZ GROUP 9
- **Facility Description:** The facilities (MOCA 7101-03, CAPA 7103-01, CAPA 7103-04, MOCA II 7104-06, SAN SEBASTIAN 1 7801-01, SAN SEBASTIAN 1 7801-03) are part of the feeder systems in the Mayagüez Region. These interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system. The feeders all originate from a substation (start) and serve customers along a route to various locations (end). The coordinates represented by GPS end is the end of the mainline backbone of each feeder. 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:** 1980
- **Start GPS Latitude/Longitude:** [REDACTED]
- **End 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

# FAASt Distribution Pole and Conductor Repair - Mayagüez Group 9 (Moca -7101-03, CAPA 7103-01, 7103-0

## 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 – Mayaguez Group 10 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 Mayaguez 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
CAPA	7103-01	1	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
MOCA II	7104-06	2	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
SAN SEBASTIAN 1	7801-01	4	██████████ ██████████	██████████ ██████████	3 Phase	4.16	More than 20 Years
SAN SEBASTIAN 1	7801-03	2	██████████ ██████████	██████████ ██████████	3 Phase	4.16	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 7103-01 Scope:

Remove	Quantity	Install	Quantity
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45ft Concrete Pole(s)	1	50ft H4 Concrete Pole(s)	1
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Feeder 7104-06 Scope:

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

Feeder 7801-01 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 7801-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
35ft Wood Pole(s)	1	50ft H6 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 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 Mayaguez 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	Total	428 Public Assistance	406 Hazard Mitigation
Planning, Permits and Applications	\$4,842.00	\$4,842.00	\$0.00
Environmental Management	\$6,921.00	\$6,921.00	\$0.00
Engineering	\$20,961.00	\$17,656.90	\$3,304.10
Project Management	\$10,480.50	\$8,828.45	\$1,652.05
Distribution Line	\$209,610.00	\$176,569.00	\$33,041.00
Contingency	\$25,281.45	\$21,481.74	\$3,799.72
<b>Total Project Cost Estimate:</b>	<b>\$278,095.95</b>	<b>\$236,299.09</b>	<b>\$41,796.87</b>
FAASt Project # 682210 (428) Total			\$198,050.74
FAASt Project # 682210 (406) Total			\$41,796.87
FAASt A&E #335168 Total			\$38,248.35
<b>Total Cost</b>			<b>\$278,095.95</b>

Please refer to Appendix H for Cost Estimate Details.

**428 Work To Be Completed (WTBC): \$236,299.09**

**428 A&E Deduction (Global A&E FAASt 335168) -\$38,248.35**

**428 WTBC Project Total Cost: \$198,050.74**

For detailed cost estimate, please refer to document labeled: 682210-DR4339PR-Appendix H - Detail Cost Estimate - Mayaguez Group 9 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 682210-DR4339PR-Detailed SOW Mayaguez Group 9 Rev0.pdf.
2. For reference, documents Appendix A thru L
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).

**406 HMP Scope**



Project number: 682210

Damage #1241499; FAASt [Mayagüez Group 9 - CAPA 7103-01, MOCA II 7104-06, SAN SEBASTIAN 7801-01, SAN SEBASTIAN 1 7801-03].

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

Location: Mayagüez, Puerto Rico

### 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 #682210 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair-Mayagüez Group 9 consists of 4 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: CAPA 7103-01, MOCA II 7104-06, SAN SEBASTIAN 7801-01, SAN SEBASTIAN 1 7801-03.

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.

#### 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 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 PAPPV V3.1.

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

##### 1.Feeder CAPA 7103-01 Scope: 1EA.pole.

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

##### 2.Feeder MOCA II 7104-06 Scope: 2EA.poles.

Replace two (2) 50ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.

##### 3.Feeder SAN SEBASTIAN 7801-01 Scope: 4EA. Poles.

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

Replace two (2) 50ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.

##### 4.Feeder SAN SEBASTIAN 1 7801-03: 2EA. Poles.

Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.

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

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

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 33,041.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 8,755.87</u>
Hazard Mitigation Total Cost =	<b>\$ 41,796.87</b>

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

Eligible Cost of PA repair Scope of Work per DI: \$176,569.00

Net Cost of 406 HMP per DI: \$33,041.00

$HMR = (Total\ Net\ Hazard\ Mitigation\ Cost / Project\ Net\ In-Kind\ Repair\ Cost) \times 100$

$HMR = (\$33,041.00 / \$176,569.00) \times 100 = 18.71\% (< 100\% \text{ Appendix J}).$

\* See Mitigation Profile Documents Tab for complete version of this HMP and supporting documents.

\* Due to GM system constraints in the Mitigation Profile Cost Tab, there may be a discrepancy in the total dollar amount of the mitigation proposal (or, the cost effectiveness statement) cited in the Cost Tab of the project(s). Whenever a difference between the Mitigation Cost Tab and the completed HMP cost occurs, the correct dollar amount of the grant proposal will default to the amount of 406 funding cited on the actual HMP document (and the Cost Summary Spreadsheet) uploaded into the Mitigation Profile Documents Tab.

\* This project Hazard Mitigation costing / soft cost / factor methodologies followed the same procedures provided in the cost estimates of the PA portion of the project.

## Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (PREPA FAASt Global A&E 335168))	1.00	Lump Sum	(\$38,248.35)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (PREPA FAASt Project 136271))	1.00	Lump Sum	\$236,299.09	Uncompleted

CRC Gross Cost \$198,050.74

Total 406 HMP Cost \$41,796.87

Total Insurance Reductions \$0.00

CRC Net Cost \$239,847.61

Federal Share (90.00%) \$215,862.85

Non-Federal Share (10.00%) \$23,984.76

## 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-11169(13194)	\$239,847.61	90 %	\$215,862.85	1/23/2023

### 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 #
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## 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

**12/29/2022**

No adjustments to be made to the previous insurance coverage determination, no revisions to narrative needed, updated applicant tracker if needed, providing administrative function and forwarding project for completion.

Olga Renta, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR

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**12/20/2022**

**GENERAL INFORMATION**

Event: DR4339-PR

Project: SP 682210

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: \$239,847.61 (CRC Gross Cost \$198,050.74 + Mitigation Amount \$41,796.87)

**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) #1241499:**

**FAAST Distribution Pole and Conductor Repair - Mayagüez Group 9 (Moca -7101-03, CAPA 7103-01, 7103-04, Moca II -7104-06, San Sebastian 1 -7801-01, 7801-03)**

Location Description: DISTRIBUTION POLE AND CONDUCTOR REPAIR - MAYAGÜEZ GROUP 9

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: \$239,847.61 (CRC Gross Cost \$198,050.74 + Mitigation Amount \$41,796.87)

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 - Mayagüez Group 9 (Moca - 7101-03, CAPA 7103-01, 7103-04, Moca II -7104-06, San Sebastian 1 -7801-01, 7801-03) 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 - Mayagüez Group 9 (Distribution)**.

## 406 Mitigation

There is no additional mitigation information on **FAAST Distribution Pole and Conductor Repair - Mayagüez Group 9 (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 Conservation Measures for Epictates Inornatus apply to Feeder 7801-01. 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.

- 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. 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. 3. 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.
- NEPA Determination - 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.
- NEPA Determination - 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.
- 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.

#### EHP Additional Info

There is no additional environmental historical preservation on **FAASt Distribution Pole and Conductor Repair - Mayagüez Group 9 (Distribution)**.

## Final Reviews

### Final Review

**Reviewed By** CHIRICO, JOSEPH A.

**Reviewed On** 01/04/2023 8:45 AM EST

#### Review Comments

Approved for obligation- Recipient is responsible for compliance with applicable requirements...

### Recipient Review

**Reviewed By** Cintron, Jesus

**Reviewed On** 01/05/2023 3:48 PM EST

#### Review Comments

Review Completed. Pending Applicant Final 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 \$239,847.61 for subaward number 11169 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** 01/06/2023