

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

NEPR Received: Jan 17, 2023 4:01 PM
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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 Ten FEMA
Approvals of Projects, Request for Confidential
Treatment, and Supporting Memorandum of Law**

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

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC¹, and LUMA Energy ServCo, LLC², (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, ordering, in pertinent part, that the Puerto Rico Electric Power Authority ("PREPA") submit to the Energy Bureau the specific transmission and distribution projects ("T&D Projects" or "projects") to be funded with Federal Emergency Management Agency ("FEMA") funds or any other federal funds at least thirty (30) calendar days prior to submitting these projects to the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3"), FEMA or any other federal agency ("March 26th Order"). It also directed PREPA to continue reporting to the Energy Bureau and FEMA within the next five years,

¹ Register No. 439372.

² Register No. 439373.

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

2. On August 30, 2021, LUMA filed a *Motion Requesting Clarification of a Portion of the Energy Bureau’s Resolution and Order Entered on August 20, 2021 and Submitting Updated List of Transmission and Distribution Projects and Twenty-Nine Scope of Work* (“August 30th Motion”). In the August 30th Motion, LUMA submitted twenty-nine (29) SOWs for T&D Projects for the Energy Bureau’s review and approval prior to submitting them to COR3 and FEMA. The SOWs submitted by LUMA included the “FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair - Caguas Group 11] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair - Caguas Group 13] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair – Mayagüez Group 10] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair - Ponce Group 4] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair - San Juan Group 8] (Distribution)”, “FAASt [Distribution Pole and Conductor Repair-Bayamon Group 8] (Distribution)”, “FAASt Distribution Pole and Conductor Repair – Mayagüez Group 8 (Distribution)”, and “FAASt Distribution Pole and Conductor Repair Ponce Group 5 (Distribution).”³

³ These T&D Projects were submitted originally to the Energy Bureau as the “Distribution Pole & Conductor Replacement,” which encompassed pole and conductor replacement projects throughout Puerto Rico but were later divided into individual projects per region.

3. On September 22, 2021, the Energy Bureau issued a Resolution and Order. It determined that most of the SOWs for T&D projects submitted by LUMA were necessary to improve the system's reliability ("September 22nd Order"). Therefore, it approved most of the projects presented in the August 30th Motion, including the "FAASt [Distribution Pole and Conductor Repair - Ponce Group 4] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - San Juan Group 8] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Bayamon Group 8] (Distribution)", "FAASt Distribution Pole and Conductor Repair – Mayagüez Group 8 (Distribution)", "FAASt Distribution Pole and Conductor Repair Ponce Group 5 (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 11] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 13] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)", and "FAASt [Distribution Pole and Conductor Repair – Mayagüez Group 10] (Distribution)", T&D Projects SOWs. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the projects, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

4. In compliance with the September 22nd Order, LUMA hereby submits copies of approvals by FEMA of the projects issued on January 10, 2023.⁴ See **Exhibit 1** to this Motion. The document details FEMA's approval of projects and includes the cost obligated for each.

⁴ 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.

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 approval 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 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.⁵ In at least two proceedings on Data Security,⁶ and Physical Security,⁷ 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

⁵ *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).

⁶ *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

⁷ *In re Review of the Puerto Rico Electric Power Authority Physical Security Plan*, NEPR-MI-2020-0018.

designation to several portions of LUMA's Initial Budgets and Responses to Requests for Information. *See* Resolution and Order of April 22, 2021, on Initial Budgets, table 2 on pages 3-4, and Resolution and Order of April 22, 2021, on Responses to Requests for Information, table 2 on pages 8-10, Case No. NEPR-MI-2021-0004; Resolution and Order of April 23, 2021, on Confidential Designation of Portions of LUMA's System Remediation Plan, table 2 on page 5, and Resolution and Order of May 6, 2021, on Confidential Designation of Portions of LUMA's 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”).⁸

⁸ 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.

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).⁹

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

(F) does not constitute a waiver of any applicable privilege or protection provided under law, such as trade secret protection.

⁹ 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;

(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.

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.

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	FAASt [Distribution Pole and Conductor Repair - Ponce Group 4] (Distribution)	Pages 1, 2, 6, and 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - San Juan Group 8] (Distribution)	Pages 1, 2, 6, and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair-Bayamon Group 8] (Distribution)	Pages 1, 2, 7, and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt Distribution Pole and Conductor Repair – Mayagüez Group 8 (Distribution)	Pages 1, 2, 6, and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt Distribution Pole and Conductor Repair Ponce Group 5(Distribution)	Pages 1, 2, 7, and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Distribution)	Pages 1, 2, 6, and 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 11] (Distribution)	Pages 1, 2, and 7	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 13] (Distribution)	Pages 1, 2, 7, and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)	Pages 1, 2, 6, and 12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Mayagüez Group 10] (Distribution)	Pages 1, 2, 5, and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	January 17, 2023

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

RESPECTFULLY SUBMITTED.

We hereby certify that we filed this motion using the electronic filing system of this Energy Bureau. We will send an electronic copy of this motion to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law, and Katuska Bolaños-Lugo, kbolanos@diazvaz.law.

In San Juan, Puerto Rico, on this 17th day of January 2023.



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/s/ Yahaira De la Rosa Algarín
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RUA NÚM. 18,061
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Exhibit 1

FEMA Approvals

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	679458	PW#	11114	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - Ponce Group 4] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #661281; FAASt [Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02]

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:** Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02
- **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

661281

FAASt [Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAU

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 – Ponce Group 4 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 Ponce 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)	Construction Date
Jobos T.C.	4003-02	4			3 Phase	13.2	More than 20 years
Jobos T.C.	4003-03	4			3 Phase	13.2	More than 20 years
Patillas	4201-02	5			3 Phase	4.16	More than 20 years
Maunabo	4301-01	5			3 Phase	4.16	More than 20 years
Maunabo	4301-02	4			3 Phase	4.16	More than 20 years
Maunabo	4301-03	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" 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 4003-02 Scope:

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

Feeder 4003-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft Galvanized Steel S8 Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 4201-02 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	1
35ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
35ft Wood Pole(s) / 40ft Concrete Pole(s)	2	50ft H6 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Concrete Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 4301-01 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft Galvanized Steel S8 Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1

40ft Concrete Pole(s)	2	50ft H4 Concrete Pole(s)	2
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Feeder 4301-02 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2

Feeder 4301-03 Scope:

- No 428 PA work identified

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 Ponce 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)	20

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	\$11,836	\$11,836	\$0
Environmental Management	\$16,918	\$16,918	\$0
Engineering	\$51,993	\$44,445	\$7,548
Project Management	\$25,996	\$22,222	\$3,774
Distribution Line	\$519,929	\$444,449	\$75,480
Contingency	\$62,667	\$53,987	\$8,680
Total Project Estimate:	\$689,339	\$593,857	\$95,482

FAASt Project 679458 (428) Total	\$498,436
FAASt Project 679458 (406) Total	\$95,482
FAASt Project A&E 335168	\$95,421
Total Cost	\$689,339

428 Work To Be Completed (WTBC): \$593,857

428 A&E Deduction (Global A&E FAASt 335168) -\$95,421

WTBC 428 Project Total Cost: \$498,436

For detailed cost estimate, please refer to document labeled: 679458-DR4339PR-Appendix H - Detail Cost Estimate - Ponce Group 4 Rev1.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 679458-DR4339PR-Detailed SOW Ponce Group 4 Rev1 New Template.pdf
2. For reference documents Appendix A thru L. For detail cost estimate see Appendix H document:679458-DR4339PR-Appendix H - Detail Cost Estimate - Ponce Group 4 Rev1.xlsx.
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: 679458

Damage #661281: FAASt [Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02.

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

Location: Ponce, P.R.

GPS Latitude/Longitude: Start GPS Latitude/Longitude: [REDACTED] End 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 #674958 (Distribution Critical Poles & Conductors Repair/Replacement)-Ponce Group 4.

The Distribution Pole and Conductor Repair-Ponce Group 4 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02.

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*)

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

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

1. Feeder 4003-02 Scope:
 - Replace Two (2) 50ft concrete H4 pole by Two (2) 50ft galvanized steel S8 pole.
 - Replace Two (2) 50ft concrete H6 pole by Two (2) 50ft galvanized steel S8 pole.
2. Feeder 4003-03 Scope:
 - Replace One (1) 50ft concrete H4 pole by One (1) 50ft galvanized steel S8 pole.
 - Replace Two (2) 50ft concrete H6 pole by Two (2) 50ft galvanized steel S8 pole.
3. Feeder 4201-02 Scope:
 - Replace Two (2) 50ft concrete H4 pole by Two (2) 50ft galvanized steel S8 pole.
 - Replace Three (3) 50ft concrete H6 pole by Three (3) 50ft galvanized steel S8 pole.
4. Feeder 4301-01 Scope:
 - Replace Four (4) 50ft concrete H4 pole by Four (4) 50ft galvanized steel S8 pole.
5. Feeder 4301-02 Scope:
 - Replace Four (4) 50ft concrete H4 pole by Four (4) 50ft galvanized steel S8 pole.

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	\$75,480.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$20,002.00</u>
Hazard Mitigation Total Cost =	\$95,482.00

(IV) HMP Cost-Effectiveness Calculations

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

HMR = (\$75,480.00 / \$444,449.00) x 100 = 16.98%

The cost of this Hazard Mitigation Proposal (HMP) is 16.98% 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.

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***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).**

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

Eligible Cost of PA repair Scope of Work per DI: \$ 444,449.00

Net Cost of 406 HMP per DI: \$ 75,480.00

Cost of 406 HMP w/factors: \$ 95,482.00

Calculation for eligibility: Ratio of HMP C/B = \$75,480.00/\$444,449.400 x 100 = 16.98 % (< 100%; 100% Rule & Appendix J)

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (Engineering And Design Services (Global A&E FAASSt 335168) Version 0))	1.00	Lump Sum	(\$95,421.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (9001 (Contract (FAASSt 136271) Version 0))	1.00	Lump Sum	\$593,857.00	Uncompleted

CRC Gross Cost \$498,436.00

Total 406 HMP Cost \$95,482.00

Total Insurance Reductions \$0.00

CRC Net Cost \$593,918.00

Federal Share (90.00%) \$534,526.20

Non-Federal Share (10.00%) \$59,391.80

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11114(13040)	\$593,918.00	90 %	\$534,526.20	1/5/2023

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

12/14/2022

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.

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

11/21/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 679458

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: \$593,918.00 (CRC Gross Cost \$498,436.00 + Mitigation Amount \$95,482.00)

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) #661281:

FAASt [Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03,

PATILLAS 4201-02]

Location Description: Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02

GPS Coordinates: Start [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: \$593,918.00 (CRC Gross Cost \$498,436.00 + Mitigation Amount \$95,482.00)

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 [Ponce Group 4 - JOBOS T.C. 4003-02, JOBOS T.C. 4003-03, MAUNABO 4301-01, MAUNABO 4301-02, MAUNABO 4301-03, PATILLAS 4201-02] 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 - Ponce Group 4] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - Ponce Group 4] (Distribution)**.

Environmental Historical Preservation

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

Yes

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conservation Measures for Puerto Rican Boa (DLs 4201-02 and 4301-01): 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 #: 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.

- Endangered Species Act (ESA) - Conservation Measures for *Caprimulgus noctitherus* (DL4003-03) and *Buteo platypterus brunnescens* (DL4201-02): 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 broad-winged hawk (*Buteo platypterus*): December-June; Puerto Rican nightjar (*Antrostomus noctitherus*): February-August. 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.
- Endangered Species Act (ESA) - Conservation Measures for *Eleutherodactylus cooki* (DLs 4201-02, 4301-01 and 4301-02): a. Inform all project personnel about the potential presence of the coquí guajón in areas where the proposed work will be conducted. A pre -construction meeting shall be conducted to inform all project personnel about the requirement of avoiding harm to the species. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. b. Project boundaries, buffer zones and areas to be excluded or protected shall be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. c. Erosion and Sedimentation Control Best Management Practices (BMP's) shall be included in the project scope of work when working within or adjacent to the coquí guajón habitat (e.g. rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species' habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. d. All project associated with streams, rivers, bridges, culverts, etc., shall follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane María. The guide is available at: <https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf>
- 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 - 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 Pole and Conductor Repair - Ponce Group 4] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 9:38 AM AST

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 10:19 AM AST

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 \$593,918.00 for subaward number 11114 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

Project #	682028	PW#	11166	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - San Juan Group 8] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1238085; FAASt [Pole and Conductor Repair - San Juan Group 8] (VENEZUELA 13KV 1348-08, HATO REY GIS 13KV 1404-07, TRES MONJITAS 1414-04, BALDRICH 13KV 1424-06, LAS LOMAS 1525-04, LAS LOMAS 1525-05)

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 feeders VENEZUELA 13KV 1348-08, HATO REY GIS 13KV 1404-07, TRES MONJITAS 1414-04, BALDRICH 13KV 1424-06, LAS LOMAS 1525-04, LAS LOMAS 1525-05
- **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

1238085

FAASt [Pole and Conductor Repair - San Juan Group 8] (VENEZUELA 13KV 1348-08,

HATO REY GIS 13KV 1404

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 – San Juan 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 San Juan 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
VENEZUELA 13KV	1348-08	9			3 Phase	13.2	More than 20 Years
HATO REY GIS 13KV	1404-07	1			3 Phase	13.2	More than 20 Years
TRES MONJITAS	1414-04	3			3 Phase	4.16	More than 20 Years
LAS LOMAS	1525-04	3			3 Phase	4.16	More than 20 Years
LAS LOMAS	1525-05	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 1348-08 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	70ft Galvanized Steel S8 pole(s)	1
40ft Wood Pole(s)	2	45ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1
40ft Steel Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
50ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
60ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 1404-07 Scope:

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

Feeder 1414-04 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	2	50ft H6 Concrete Pole(s)	2

Feeder 1525-04 Scope:

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

Feeder 1525-05 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	3	45ft H4 Concrete Pole(s)	3
40ft Wood Pole(s)	1	45ft 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 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	\$10,760	\$10,760	\$0
Environmental Management	\$15,380	\$15,380	\$0
Engineering	\$46,814	\$38,455	\$8,359
Project Management	\$23,407	\$19,227	\$4,180
Distribution Line	\$468,136	\$384,545	\$83,591
Contingency	\$56,450	\$46,837	\$9,613
Total Project Cost Estimate:	\$620,946	\$515,203	\$105,743
FAASt Project # 682028 (428) Total		\$431,381.68	
FAASt Project # 682028 (406) Total		\$105,742.62	
FAASt A&E #335168 Total		\$83,821.75	
Total Cost		\$620,946.04	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$515,203.43

428 A&E Deduction (Global A&E FAASt 335168) -\$83,821.75

428 Project Total Cost: \$431,381.68

For detailed cost estimate, please refer to document labeled: 682028-DR4339PR-Appendix H - Detail Cost Estimate - San Juan Group 8 Rev0.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 682028-DR4339PR-Detailed SOW San Juan 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: 682028, FAASt [Distribution Pole and Conductor Repair - San Juan Group 8] (Distribution)

Damage # 1238085; FAASt [Pole and Conductor Repair - San Juan Group 8

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

Location: San Juan, Puerto Rico

GPS Latitude/Longitude: 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 #682028, [Distribution Pole and Conductor Repair - San Juan Group 8]

The Distribution Pole and Conductor Repair- San Juan Group 8 consists of 5 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Venezuela 13KV 1348-08, Hato Rey GIS 13KV 1404-07, Tres Monjitas 1414-04, Baldrich 13KV 1424-06, Las Lomas 1525-04, Las Lomas 1525-05).

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.

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

1. Feeder 1348-08 Scope (8ea):

- Replace six (6) 45ft concrete H4 poles by six (6) 50ft galvanized steel S8 pole.
- Replace one (1) 45ft concrete H6 poles by one (1) 50ft galvanized steel S8 pole
- Replace one (1) 50ft concrete H4 poles by one (1) 50ft galvanized steel S8 pole

1. Feeder 1404-07 Scope (1ea):

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

1. Feeder 1414-04 Scope (3ea):

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

1. Feeder 1525-04 Scope (3ea):

- Replace three (3) 45ft concrete H4 poles by three (3) 50ft galvanized steel S8 poles.

1. Feeder 1525-05 Scope (4ea):

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

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) = \$ 83,591.00
+ HM (Applicant A&E, Management & General Conditions) = \$ 22,151.62
Hazard Mitigation Total Cost = \$ 105,743.62

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$359,132.00

Net Cost of 406 HMP per DI: \$83,591.00

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

$HMR = (\$83,591.00 / \$359,132.00) \times 100 = 23.28\% (< 100\% \text{ and Appendix J}).$

* 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 (Global A&E #335168))	1.00	Lump Sum	(\$83,821.75)	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	\$515,203.43	Uncompleted

CRC Gross Cost	\$431,381.68
Total 406 HMP Cost	\$105,743.62
Total Insurance Reductions	\$0.00
<hr/>	
CRC Net Cost	\$537,125.30
Federal Share (90.00%)	\$483,412.77
Non-Federal Share (10.00%)	\$53,712.53

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-11166(13049)	\$537,125.30	90 %	\$483,412.77	1/5/2023

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

12/19/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 682028

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: \$537,125.30 (CRC Gross Cost \$431,381.68 + Mitigation Amount \$105,743.62)

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) #1238085:

FAASt [Pole and Conductor Repair - San Juan Group 8] (VENEZUELA 13KV 1348-08, HATO REY GIS 13KV 1404-07, TRES MONJITAS 1414-04, BALDRICH 13KV 1424-06, LAS LOMAS 1525-04, LAS LOMAS 1525-05)

Location Description: Distribution feeders VENEZUELA 13KV 1348-08, HATO REY GIS 13KV 1404-07, TRES MONJITAS 1414-04, BALDRICH 13KV 1424-06, LAS LOMAS 1525-04, LAS LOMAS 1525-05

GPS Coordinates: Start [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: \$537,125.30 (CRC Gross Cost \$431,381.68 + Mitigation Amount \$105,743.62)

-
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 [Pole and Conductor Repair - San Juan Group 8] (VENEZUELA 13KV 1348-08, HATO REY GIS 13KV 1404-07, TRES MONJITAS 1414-04, BALDRICH 13KV 1424-06, LAS LOMAS 1525-04, LAS LOMAS 1525-05) 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 - San Juan Group 8] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - San Juan 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.
- 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 only for feeder 1348-08. 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 #: 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.

EHP Additional Info

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

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/22/2022 12:32 PM AST

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 12/23/2022 3:28 PM AST

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 \$537,125.30 for subaward number 11166 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 12/27/2022

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	682135	PW #	11149	Project Type	Specialized
Project Category	F - Utilities			Applicant	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Pole and Conductor Repair-Bayamon Group 8] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large			Declaration Date	9/20/2017
Activity Completion Date	9/20/2027			Incident Start Date	9/17/2017
Process Step	Obligated			Incident End Date	11/15/2017

Damage Description and Dimensions

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

Damage #1238079; FAASt [Distribution Pole and Conductor Repair - Bayamon Group 8]

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 - Bayamon Group 8
- **Facility Description:** The facilities listed below are part of the feeder systems in the Bayamón Region. These interconnected and interfunctional 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.
- **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

1238079 **FAASt [Distribution Pole and Conductor Repair - Bayamon Group 8]**

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 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 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
Toa Alta	9401-02	4			3 Phase	4.16	More than 20 Years
Barrio Piñas	9403-01	0			3 Phase	4.16	More than 20 Years
Barrio Piñas 13 kV	9405-05	8			3 Phase	13.2	More than 20 Years
Naranjito	9801-02	1			3 Phase	8.32	More than 20 Years
Naranjito	9801-03	8			3 Phase	8.32	More than 20 Years
Naranjito 2	9802-04	4			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 9401-02 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s) 45ft Steel Pole(s)	2	50ft H4 Concrete Pole(s)	1

Feeder 9403-01 Scope:

- No 428 PA work identified

Feeder 9405-05 Scope:

Remove	Quantity	Install	Quantity
35ft Concrete Pole(s)	5	50ft H4 Concrete Pole(s)	5
40ft Concrete Pole(s)	2	50ft H4 Concrete Pole(s)	2
45ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1

Feeder 9801-02 Scope:

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

Feeder 9801-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	2	50ft H6 Concrete Pole(s)	2
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

45ft Steel Pole(s)	1	50ft H4 Concrete Pole(s)	1
50ft Concrete Pole(s)	1	50ft H6 Concrete Pole(s)	1
60ft Wood Pole(s)	1	65ft H6 Concrete Pole(s)	1

Feeder 9802-04 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	3	50ft H6 Concrete Pole(s)	3
55ft Wood Pole(s)	2	50ft H6 Concrete Pole(s)	1
40ft Aluminum Pole(s)			

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)	24
70ft 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	\$13,450.00	\$13,450.00	\$0.00

Environmental Management	\$19,225.00	\$19,225.00	\$0.00
Engineering	\$60,687.50	\$51,455.90	\$9,231.60
Project Management	\$30,343.75	\$25,727.95	\$4,615.80
Distribution Line	\$606,875.00	\$514,559.00	\$92,316.00
Contingency	\$73,058.13	\$62,441.79	\$10,616.34
Total Project Cost Estimate:	\$803,639.38	\$686,859.64	\$116,779.74
FAASt Project # 682135 (428) Total		\$577,000.79	
FAASt Project # 682135 (406) Total		\$116,779.74	
FAASt A&E #335168 Total		\$109,858.85	
Total Cost		\$803,639.38	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$686,859.64

428 A&E Deduction (Global A&E FAASt 335168) -\$116,779.74

428 WTBC Project Total Cost: \$577,000.79

For detailed cost estimate, please refer to document labeled: 682135-DR4339PR-Appendix J - EHP Checklist Bayamon Group 8 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 682135-DR4339PR-Detailed SOW Bayamon 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: 682135; FAASt [Distribution Pole and Conductor Repair – Bayamon Group 8] (Distribution)

Damage #: 1238079; FAASt [Distribution Pole and Conductor Repair - Bayamon Group 8]

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

Location: Bayamon, Puerto Rico

GPS Latitude/Longitude: 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 #682135 (Distribution Pole & Conductor Repair - Bayamon Group 8] (Distribution)

The Distribution Pole and Conductor Repair - Bayamon Group 8 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Toa Alta 9401-02, Barrio Piñas 9403-01, Barrio Piñas 13 Kv 9405-05, Naranjito 9801-02, Naranjito 9801-03 & Naranjito 2 9802-04.

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.

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

1. Feeder 9401-02 Scope (4ea):

- Replace four (4) 50ft concrete H4 pole by four (4) 50ft Galvanized Steel Pole S8

2. Feeder 9403-01 Scope (0ea):

- No 406 Hazard Mitigation work identified at this time.

3. Feeder 9405-05 Scope (8ea):

- Replace eight (8) 50ft concrete H4 pole by eight (8) 50ft Galvanized Steel Pole S8

4. Feeder 9801-02 Scope (1ea):

- Replace one (1) 50ft concrete H6 pole by one (1) 50ft Galvanized Steel Pole S8

5. Feeder 9801-03 Scope (8ea):

- Replace two (2) 50ft concrete H4 pole by two (2) 50ft Galvanized Steel Pole S8
- Replace five (5) 50ft concrete H6 pole by five (5) 50ft Galvanized Steel Pole S8
- Replace one (1) 65ft concrete H6 pole by one (1) 70ft Galvanized Steel Pole S8. No 406 Hazard Mitigation work identified to replace one (1) 65ft H6 concrete pole. Note: As discussed and agreed in previous meetings, the 70ft galvanized steel S8 pole is cheaper than the 65ft H6 concrete pole. Therefore, the Mitigation is accomplished by the 428 PA method of repair (MOR).
 - Replace one (1) 65' concrete H6 pole "self-support" concrete base $\{[(5'(L) \times 5'(W) \times 10'(D)) - (1.75'(L) \times 1.75'(W) \times 9'(D))]\} / 27 = 8.5 \text{ CY}$; by one (1) 70ft galvanized steel S8 poles "self-support" concrete bases $\{[(5.5'(L) \times 5.5'(W) \times 12'(D)) - (2.75'(L) \times 2.75'(W) \times 11'(D))]\} / 27 = 10.5 \text{ CY}$

6. Feeder 9802-04 Scope (4ea):

- Replace four (4) 50ft concrete H6 pole by four (4) 50ft Galvanized Steel Pole S8

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 92,316.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 24,463.74</u>
Hazard Mitigation Total Cost =	\$ 116,779.74

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$514,559.00

Net Cost of 406 HMP per DI: \$92,316.00

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

HMR = (\$92,316.00 / \$514,559.00) x 100 = 17.94%

* 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 (Global A&E FAASSt 335168))	1.00	Lump Sum	(\$109,858.85)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (FAASSt Project 136271))	1.00	Lump Sum	\$686,859.64	Uncompleted

CRC Gross Cost \$577,000.79

Total 406 HMP Cost \$116,779.74

Total Insurance Reductions \$0.00

CRC Net Cost \$693,780.53

Federal Share (90.00%) \$624,402.48

Non-Federal Share (10.00%) \$69,378.05

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-11149(13044)	\$693,780.53	90 %	\$624,402.48	1/5/2023

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

12/7/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 682135

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: \$693,780.53 (CRC Gross Cost \$577,000.79 + Mitigation Amount \$116,779.74)

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) #1238079:

FAASt [Distribution Pole and Conductor Repair - Bayamon Group 8]

Location Description: Distribution Pole and Conductor Repair - Bayamon Group 8

GPS Coordinates: Start [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: \$693,780.53 (CRC Gross Cost \$577,000.79 + Mitigation Amount \$116,779.74)

-

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 - Bayamon Group 8] 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-Bayamon Group 8] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST [Distribution Pole and Conductor Repair-Bayamon 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.
- 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) - USFWS Required Conservation Measures for *Epicrates inornatus* (Feeders 9401-02, 9405-05, 9801-02, 9801-03, 9802-04):
 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.

- 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-Bayamon Group 8] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/21/2022 10:23 AM AST

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 12/22/2022 5:08 PM AST

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 \$693,780.53 for subaward number 11149 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 12/27/2022

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	685370	PW#	11150	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt Distribution Pole and Conductor Repair - Mayagüez Group 8 (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Small	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1246753; FAAtASt Distribution Pole and Conductor Repair - Mayagüez Group 8

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 8
- **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

1246753 **FAAtASt Distribution Pole and Conductor Repair - Mayagüez Group 8**

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 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 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
Isabela	7503-05	0			3 Phase	4.16	More Than 20 Years
Isabela Planta 3	7504-01	0			3 Phase	4.16	More Than 20 Years
Mora 13.2 Kv	7505-05	0			3 Phase	13.2	More Than 20 Years
Lares	7901-03	2			3 Phase	4.16	More Than 20 Years
Lares	7901-04	1			3 Phase	4.16	More Than 20 Years
Las Marias	6201-02	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" 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 7503-05 Scope:

- No 428 PA work identified

Feeder 7504-01 Scope:

- No 428 PA work identified

Feeder 7505-05 Scope:

- No 428 PA work identified

Feeder 7901-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s) 40ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1

Feeder 7901-04 Scope:

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

Feeder 6201-02 Scope:

- No 428 PA work identified

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.

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)	3

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	\$1,614	\$1,614	\$0
Environmental Management	\$2,307	\$2,307	\$0
Engineering	\$7,322	\$6,137	\$1,185
Project Management	\$3,661	\$3,069	\$592
Distribution Line	\$73,220	\$61,373	\$11,847
Contingency	\$8,812	\$7,450	\$1,362
Total Project Cost Estimate:	\$96,936	\$81,950	\$14,986
FAASt Project # 685370 (428) Total		\$68,823	
FAASt Project # 685370 (406) Total		\$14,986	
FAASt A&E #335168 Total		\$13,127	
Total Cost		\$96,936	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$81,950

428 A&E Deduction (Global A&E FAASt 335168) -\$13,127

428 Project Total Cost: \$68,823

For detailed cost estimate, please refer to document labeled: 685370-DR4339PR-Appendix H - Detail Cost Estimate - Mayaguez Group 8 Rev.0 (1).xlsx

Project Notes:

1. Refer to detailed SOW provided in document 685370-DR4339PR-Detailed SOW Mayaguez 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: 685370

Damage #1246753: FAASt Distribution Pole and Conductor Repair - Mayagüez Group 8; Isabela 7503-05, Isabela Planta 3 7504-01, Mora 13.2 Kv 7505-05, Lares 7901-03, Lares 7901-04 and Las Marias 6201-02]

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

Location: Mayaguez, P.R.

GPS Latitude/Longitude: 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 #685370 (Distribution Pole & Conductor Repair) Mayaguez Group 8.

The Distribution Pole and Conductor Repair-Mayaguez Group 8 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Isabela 7503-05, Isabela Planta 3 7504-01, Mora 13.2 Kv 7505-05, Lares 7901-03, Lares 7901-04 and Las Marias 6201-02.

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*)

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

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

1. Feeder 7901-03 Scope:

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

2. Feeder 7901-04 Scope:

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

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	\$11,847.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 3,139.00</u>
Hazard Mitigation Total Cost =	\$14,986.00

(IV) HMP Cost-Effectiveness Calculations

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

HMR = (\$11,847.00 / \$61,373.00) x 100 = **19.3%**

The cost of this Hazard Mitigation Proposal (HMP) is **19.3%** 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*).

*****This project's 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 (FAAST GLOBAL A&E 335168)	1.00	Lump Sum	(\$13,127.00)	Uncompleted
9001 (Contract (Part of FAAST PROJECT: #136271 - MEPA078))	1.00	Lump Sum	\$81,950.00	Uncompleted

CRC Gross Cost \$68,823.00

Total 406 HMP Cost \$14,986.00

Total Insurance Reductions \$0.00

CRC Net Cost \$83,809.00

Federal Share (90.00%) \$75,428.10

Non-Federal Share (10.00%) \$8,380.90

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-11150(13047)	\$83,809.00	90 %	\$75,428.10	1/5/2023

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 all of its small projects and compliance with all environmental and historic preservation requirements within 180 days of the applicant's completion of its last small project, or the latest approved deadline, whichever is sooner.
- 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

12/8/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 685370

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: \$83,809.00 (CRC Gross Cost \$68,823.00 + Mitigation Amount \$14,986.00)

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) #1246753:

FAASt Distribution Pole and Conductor Repair - Mayagüez Group 8

Location Description: Distribution Pole and Conductor Repair - Mayagüez Group 8

GPS Coordinates: Start [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: \$83,809.00 (CRC Gross Cost \$68,823.00 + Mitigation Amount \$14,986.00)

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 - Mayagüez Group 8 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 8 (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST Distribution Pole and Conductor Repair - Mayagüez 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.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa (*Epicrates inornatus*) are applicable only for feeder 7901-04. 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 #: 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.

- Endangered Species Act (ESA) - The below conservation measures apply for the feeder 7901-03 to the following species: Puerto Rican parrot (*Amazona vittata*) and Puerto Rican broad-winged hawk (*Buteo platypterus*): 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.
- 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 - Mayagüez Group 8 (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 11:56 AM AST

Review Comments

Project ready for obligation, applicant is responsible to comply with all requirements.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/16/2022 2:24 PM AST

Review Comments

Recipient review completed. Project is ready for applicant review.

Project Signatures

Signed By Miller, Thomas

Signed On 12/16/2022

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	685943	PW#	11138	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt Distribution Pole and Conductor Repair Ponce Group 5(Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1246763; FAASt Distribution Pole and Conductor Repair - Ponce Group 5

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 - Ponce Group 5
- **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

1246763 **FAASt Distribution Pole and Conductor Repair - Ponce Group 5**

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 – Ponce Group 5 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 Ponce 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
Patillas	4201-03	1			3 Phase	4.16	More than 20 Years
Patillas	4201-04	1			3 Phase	4.16	More than 20 Years
Santa Isabel	4401-01	5			3 Phase	4.16	More than 20 Years
Salinas Urbano	4501-01	2			3 Phase	4.16	More than 20 Years
Salinas Urbano	4501-04	2			3 Phase	4.16	More than 20 Years
Bo. Lapas	4504-01	1			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 4201-03 Scope:

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

Feeder 4201-04 Scope:

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

Feeder 4401-01 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	2
35ft Wood Pole(s)	3	50ft H6 Concrete Pole(s)	3

Feeder 4501-01 Scope:

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

Feeder 4501-04 Scope:

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

Feeder 4504-01 Scope:

Remove	Quantity	Install	Quantity
45ft Wood Pole(s)	1	45ft 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 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)	12

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	\$6,456.00	\$6,456.00	\$0
Environmental Management	\$9,228.00	\$9,228.00	\$0

Engineering	\$27,727.60	\$22,726.80	\$5,000.80
Project Management	\$13,863.80	\$11,363.40	\$2,500.40
Distribution Line	\$277,276.00	\$227,268.00	\$50,008.00
Contingency	\$33,455.14	\$27,704.22	\$5,750.92
Total Project Cost Estimate:	\$368,006.54	\$304,746.42	\$63,260.12
FAASt Project # 685943 (428) Total		\$254,972.22	
FAASt Project # 685943 (406) Total		\$63,260.12	
FAASt A&E #335168 Total		\$49,774.20	
Total Cost		\$368,006.54	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$304,746.42

428 A&E Deduction (Global A&E FAASt 335168) -\$49,774.20

428 Project Total Cost: \$254,972.22

For detailed cost estimate, please refer to document labeled: 685943-DR4339PR-Appendix H - Detail Cost Estimate - Ponce Group 5 Rev0 (1).xlsx

Project Notes:

1. Refer to detailed SOW provided in document 685943-DR4339PR-Detailed SOW Ponce Group 5 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: 685943; FAASt Distribution Pole and Conductor Repair - Ponce Group 5, (Distribution)

Damage #1246763; FAASt Distribution Pole and Conductor Repair - Ponce Group 5

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

Location: Ponce, Puerto Rico

GPS Latitude/Longitude: (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 #685943 (Distribution Pole & Conductor Repair/Replacement).

The Distribution Pole and Conductor Repair - Ponce Group 5 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: (Patillas 4201-03, Patillas 4201-04, Santa Isabel 4401-01, Salinas Urbano 4501-01, Salinas Urbano 4501-04, Bo. Lapas 4504-01).

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 FAAsT MOR included the PREPA distribution standards and specifications that were based on a 145mph sustained winds. However, the new PREPA Standard 2021 updates the design-criteria to a 160mph sustained winds resistant. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J: Section VI.D.1 of the PAPPG V3.1

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

1. Feeder 4201-03 Scope: 1EA Poles
 - Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
2. Feeder 4201-04 Scope: 1EA Poles
 - Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
3. Feeder 4401-01 Scope: 5EA Poles
 - Replace two (2) 50ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
 - Replace three (3) 50ft concrete H6 poles by three (3) 50ft galvanized steel S8 poles.
4. Feeder 4501-01 Scope: 2EA Poles
 - Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
5. Feeder 4501-04 Scope: 2EA Poles
 - Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
6. Feeder 4504-01 Scope: 1EA Poles
 - Replace one (1) 45ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 50,008.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 13,252.00</u>
Hazard Mitigation Total Cost =	\$ 63,260.00

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$227,268.00

Net Cost of 406 HMP per DI: \$50,008.00

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

$HMR = (\$ 50,008.00 / \$227,268.00) \times 100 = 22.00\%$

* 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 (3510 (A&E Deduction (Global A&E FAASSt 335168) Version 0)))	1.00	Lump Sum	(\$49,774.20)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (9001 (Contract (FAASSt Project 136271) Version 0))	1.00	Lump Sum	\$304,746.42	Uncompleted

CRC Gross Cost \$254,972.22

Total 406 HMP Cost \$63,260.00

Total Insurance Reductions \$0.00

CRC Net Cost \$318,232.22

Federal Share (90.00%) \$286,409.00

Non-Federal Share (10.00%) \$31,823.22

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-11138(13042)	\$318,232.22	90 %	\$286,409.00	1/5/2023

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

12/2/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 685943

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: \$318,232.22 (CRC Gross Cost \$254,972.22 + Mitigation Amount \$63,260.00)

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) #1246763:

FAAST Distribution Pole and Conductor Repair - Ponce Group 5

Location Description: Distribution Pole and Conductor Repair - Ponce Group 5

GPS Coordinates: Start [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: \$318,232.22 (CRC Gross Cost \$254,972.22 + Mitigation Amount \$63,260.00)

-

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 - Ponce Group 5 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 Ponce Group 5(Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST Distribution Pole and Conductor Repair Ponce Group 5(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 - For Feeders 4501-01, 4501-04 and 4201-03: Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conservation Measures for *Buteo platypterus* apply to Feeders 4201-04 and 4201-03. The below conservation measures apply to the following species: Puerto Rican parrot, Puerto Rican plain pigeon, Puerto Rican broadwinged hawk, Puerto Rican sharp-shinned hawk, Puerto Rican nightjar, yellow-shouldered blackbird, and Elfins-woods warbler. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (*Amazona vittata*): February to June; Puerto Rican plain pigeon (*Columba inornata wetmorei* [*Columba inornata*]): April-September; Puerto Rican broad-winged hawk (*Buteo platypterus*): December-June; Puerto Rican sharpshinned hawk (*Accipiter striatus venator*): December-June; Puerto Rican nightjar (*Antrostomus noctitherus*): February-August; Elfins-woods warbler (*Setophaga angelae*): March-June; yellow-shouldered blackbird (*Agelaius xanthomus*): February through November. 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.
- Endangered Species Act (ESA) - Conservation Measures for *Epictates inornatus* apply to Feeders 4201-04, 4501-01, 4201-03 and 4504-01. 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 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) - Conservation Measures for *Eleutherodactylus cooki* apply to 4201-04 and 4201-03. Conservation Measures to be implemented for a coquí guajón "not likely to adversely affect" determinations, a. Inform all project personnel about the potential presence of the coquí guajón in areas where the proposed work will be conducted. A pre -construction meeting shall be conducted to inform all project personnel about the requirement of avoiding harm to the species. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. b. Project boundaries, buffer zones and areas to be excluded or protected shall be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. c. Erosion and Sedimentation Control Best Management Practices (BMP's) shall be included in the project scope of work when working within or adjacent to the coquí guajón habitat (e.g. rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species' habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. d. All project associated with streams, rivers, bridges, culverts, etc., shall follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane María. The guide is available at: <https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf>
- 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAAST Distribution Pole and Conductor Repair Ponce Group 5(Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 8:58 AM AST

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 10:25 AM AST

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 \$318,232.22 for subaward number 11138 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

Project #	679134	PW#	11109	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1238148; FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02)

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:** Distribution Feeders Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02
- **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

1238148

FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Barranquitas II 9602-

03, El Abanic

INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 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 Caguas Region. These interconnected and inter-functional distribution feeders (sites) are part of the electrical distribution system. All the feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below as "GPS End" represent the end of the mainline backbone of each feeder.

Name	Feeder Number	# of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Cayey T.C.	3401-03	6			3 Phase	8.32	More than 20 years
Jajome	3403-01	0			3 Phase	4.16	More than 20 years
Cayey Rural	3405-02	1			3 Phase	8.32	More than 20 years
Barranquitas II	9602-03	3			3 Phase	8.32	More than 20 years
El Abanico PDS	9605-01	6			3 Phase	8.32	More than 20 years
El Abanico PDS	9605-02	4			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 3401-03 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	3	45ft H6 Concrete Pole(s)	3
40ft Concrete Pole(s) / 40ft Wood Pole(s)	2	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 3403-01 Scope:

- No 428 PA work identified

Feeder 3405-02 Scope:

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

Feeder 9602-03 Scope:

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

Feeder 9605-01 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	2	45ft H6 Concrete Pole(s)	2
40ft Wood Pole(s)	1	50ft H4 Concrete Pole(s)	1
50ft Wood Pole(s)	1	65ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s)	1	45ft H4 Concrete Pole(s)	1

Feeder 9605-02 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
45ft Steel 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 Caguas Regional Warehouse. Refer to Appendix L- Warehouse locations. No additional or temporary staging areas are required.

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Specific List of Permits Required:

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

Proposed 406 Hazard Mitigation Grant Program Scope of Work:

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

Utilize 406 Hazard Mitigation Pole below in place of 428 Identified Pole	Quantity
50ft Galvanized Steel S8 Pole(s)	19
70ft 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	\$10,760.00	\$10,760.00	\$0
Environmental Management	\$15,380.00	\$15,380.00	\$0
Engineering	\$49,132.60	\$40,389.50	\$8,743.10
Project Management	\$24,566.30	\$20,194.75	\$4,371.55
Distribution Line	\$491,326.00	\$403,895.00	\$87,431.00
Contingency	\$59,116.49	\$49,061.93	\$10,054.57
Total Project Estimate:	\$650,281.39	\$539,681.18	\$110,600.22
FAASt Project 679134 (428) Total			\$452,956.93
FAASt Project 679134 (406) Total			\$110,600.22
FAASt Project A&E 335168			\$86,724.25

Total Cost	\$650,281.39
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Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$539,681.18

428 A&E Deduction (Global A&E FAAsT 335168) -\$86,724.25

WTBC 428 Project Total Cost: \$452,956.93

For detailed cost estimate, please refer to document labeled: 679134-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 10 Rev1.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 679134-DR4339PR-Detailed SOW Caguas Group 10 Rev1.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).
5. This project is part of 136271-MEPA078 Puerto Rico Electrical Power Authority Island Wide FAAsT Project.

406 HMP Scope

Project number: 679134; FAAsT [Distribution Pole and Conductor Repair - Caguas Group 10] (Distribution)

Damage ##1238148; FAAsT [Distribution Pole and Conductor Repair - Caguas Group 10] (Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02)

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

<p>Location: Caguas, Puerto Rico</p> <p>GPS Latitude/Longitude: (Start: [REDACTED] End: [REDACTED])</p>
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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 #679134 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair - Caguas Group 10 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02, Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-02).

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 PAPPG V3.1.

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

1. Feeder 3401-03 Scope (6ea):

- Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
- Replace three (3) 45ft concrete H6 poles by three (3) 50ft galvanized steel S8 poles.
- Replace one (1) 50ft concrete H6 poles by one (1) 50ft galvanized steel S8 poles.

1. Feeder 3403-01 Scope (0ea):

- No 406 Mitigation work identified at this time.

1. Feeder 3405-02 Scope (1ea):

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

1. Feeder 9602-03 Scope (3ea):

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

1. Feeder 9605-01 Scope (6ea):

- Replace two (2) 45ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
- Replace two (2) 45ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.
- Replace one (1) 50ft concrete H4 poles by one (1) 50ft galvanized steel S8 poles.
- Replace one (1) 65ft concrete H6 poles by one (1) 70ft galvanized steel S8 poles.

No 406 Hazard Mitigation work identified to replace one (1) 65ft H6 concrete pole. Note: As discussed and agreed in previous meetings, the 70ft galvanized steel S8 pole is cheaper than the 65ft H6 concrete pole. Therefore, the Mitigation is accomplished by the 428 PA method of repair (MOR).

• Replace one (1) 65ft concrete H6 poles “self-support” concrete bases $\{[(5'(L) \times 5'(W) \times 10'(D)) - (1.75'(L) \times 1.75'(W) \times 9'(D))]\} / 27 = 8.5 \text{ CY}$; by one (1) 70ft galvanized steel S8 poles “self-support” concrete bases $\{[(5.5'(L) \times 5.5'(W) \times 12'(D)) - (2.75'(L) \times 2.75'(W) \times 11'(D))]\} / 27 = 10.5 \text{ CY}$. = $[(10.5\text{CY} - 8.5\text{CY}) \times 1\text{ea}] = 2\text{CY}$.

1. Feeder 9605-02 Scope (4ea):

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

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 87,431.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 23,169.22</u>
Hazard Mitigation Total Cost =	\$ 110,600.22

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$403,895.00

Net Cost of 406 HMP per DI: \$87,431.00

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

$HMR = (\$87,431.00 / \$403,895.00) \times 100 = 21.65\% (< 100\% \text{ and Appendix J}).$

* 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.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (FAASt project 335168))	1.00	Lump Sum	(\$86,724.25)	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	\$539,681.18	Uncompleted

CRC Gross Cost \$452,956.93

Total 406 HMP Cost \$110,600.22

Total Insurance Reductions \$0.00

CRC Net Cost \$563,557.15

Federal Share (90.00%) \$507,201.44

Non-Federal Share (10.00%) \$56,355.71

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-11109(13046)	\$563,557.15	90 %	\$507,201.44	1/5/2023

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

12/14/2022

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.

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

11/22/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 679134

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: \$563,557.15 (CRC Gross Cost \$452,956.93 + Mitigation Amount \$110,600.22)

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) #1238148:

FAASt [Distribution Pole and Conductor Repair - Caguas Group 10] (Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico

PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02)

Location Description: Distribution Feeders Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02

GPS Coordinates: Start [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: \$563,557.15 (CRC Gross Cost \$452,956.93 + Mitigation Amount \$110,600.22)

-
Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

-
Reduction(s):

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

-
Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAAST [Distribution Pole and Conductor Repair - Caguas Group 10] (Barranquitas II 9602-03, El Abanico PDS 9605-01, El Abanico PDS 9605-01, Cayey T.C 3401-03, Jajome 3403-01, Cayey Rural 3405-02) 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 - Caguas Group 10] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST [Distribution Pole and Conductor Repair - Caguas Group 10] (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 - Debris and/or material may not be staged, stored, or disposed of in the floodplain without obtaining a letter/permit from the state or local floodplain administrator prior to initiating works.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conservation Measures for *Epictates inornatus* apply to feeders: 9605-01, 9605-02, 3401-03, 3405-02 and 9602-03 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 #: 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.

- Endangered Species Act (ESA) - Conservation Measure for *Amazona vittata* and *Buteo platypterus* applies to Feeder 9602-03 and *Patagioenas inornata wetmorei* applies to Feeders 9605-01, 9605-02, 3401-03 and 3405-02. The below conservation measures apply to the following species: Puerto Rican parrot, Puerto Rican plain pigeon, Puerto Rican broad-winged hawk, Puerto Rican sharp-shinned hawk, Puerto Rican nightjar, yellow-shouldered blackbird, and Elfín-woods warbler. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (*Amazona vittata*): February to June; Puerto Rican plain pigeon (*Patagioenas inornata wetmorei* [*Columba inornata*]): April-September; Puerto Rican broad-winged hawk (*Buteo platypterus*): December-June; Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*): December-June; Puerto Rican nightjar (*Antrostomus noctitherus*): February-August; Elfín-woods warbler (*Setophaga angelae*): March-June; yellow-shouldered blackbird (*Agelaius xanthomus*): February through November. 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. 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- 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 Pole and Conductor Repair - Caguas Group 10] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 8:48 AM AST

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 10:04 AM AST

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 \$563,557.15 for subaward number 11109 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

Project #	682882	PW#	11130	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - Caguas Group 11] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #429489; FAASt [COMSAT 3406-02, COMSAT 3406-03, CIDRA 3601-01, CIDRA 3601-02, CIDRA 3601-03, LAS CRUCES 3602-01, LAS CRUCES 3602-02]

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:** Distribution - COMSAT 3406-02, COMSAT 3406-03, CIDRA 3601-01, CIDRA 3601-02, CIDRA 3601-03, LAS CRUCES 3602-01, LAS CRUCES 3602-02
- **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

429489

FAASt [COMSAT 3406-02, COMSAT 3406-03, CIDRA 3601-01, CIDRA 3601-02, CIDRA

3601-03, LAS CRUCES 3602-

INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 11 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 Caguas Region. These interconnected and inter-functional distribution feeders (sites) are part of the electrical distribution system. All the feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below as "GPS End" represent the end of the mainline backbone of each feeder.

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
COMSAT	3406-02	2			3 Phase	8.32	More than 20 years
COMSAT	3406-03	16			3 Phase	8.32	More than 20 years
Cidra	3601-01	0			3 Phase	8.32	More than 20 years
Cidra	3601-02	0			3 Phase	8.32	More than 20 years
Cidra	3601-03	2			3 Phase	8.32	More than 20 years
Las Cruces	3602-01	1			3 Phase	8.32	More than 20 years
Las Cruces	3602-02	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 3406-02 Scope:

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

Feeder 3406-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	3	50ft H4 Concrete Pole(s)	3
35ft Wood Pole(s)	2	50ft H6 Concrete Pole(s)	2
40ft Wood Pole(s)	3	50ft H4 Concrete Pole(s)	3
40ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s)	5	50ft H4 Concrete Pole(s)	5
40ft Concrete Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Concrete Pole(s) & 30ft Wood Pole(s)	2	50ft H4 Concrete Pole(s)	1

Feeder 3601-01 Scope:

- No 428 PA work identified

Feeder 3601-02 Scope:

- No 428 PA work identified

Feeder 3601-03 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	2	45ft H4 Concrete Pole(s)	1
35ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1

Feeder 3602-01 Scope:

Remove	Quantity	Install	Quantity
60ft Wood Pole(s)	1	65ft H6 Concrete Pole(s)	1

Feeder 3602-02 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	2	45ft H6 Concrete Pole(s)	2
35ft Wood Pole(s)	1	45ft 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 Caguas Regional Warehouse. Refer to Appendix L- Warehouse locations. No additional or temporary staging areas are required.

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Specific List of Permits Required:

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

Proposed 406 Hazard Mitigation Grant Program Scope of Work:

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

Utilize 406 Hazard Mitigation Pole below in place of 428 Identified Pole	Quantity
50ft Galvanized Steel S8 pole(s)	23
70ft 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	\$12,912.00	\$12,912.00	\$0.00
Environmental Management	\$18,456.00	\$18,456.00	\$0.00
Engineering	\$57,619.60	\$48,656.90	\$8,962.70
Project Management	\$28,809.80	\$24,328.45	\$4,481.35
Distribution Line	\$576,196.00	\$486,569.00	\$89,627.00
Contingency	\$69,399.34	\$59,092.24	\$10,307.11
Total Project Cost Estimate:	\$763,392.74	\$650,014.59	\$113,378.16
FAASt Project # 682882 (428) Total			\$545,661.24
FAASt Project # 682882 (406) Total			\$113,378.16
FAASt A&E #335168 Total			\$104,353.35
Total Cost			\$763,392.74

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$650,014.59

428 A&E Deduction (Global A&E FAASt 335168) -\$104,353.35

428 WTBC Project Total Cost: \$545,661.24

For detailed cost estimate, please refer to document labeled: 682882-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 11 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 682882-DR4339PR-Detailed SOW Caguas Group 11 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: 682882; FAAsT Distribution Pole and Conductor Repair - Caguas Group 11, (Distribution)

Damage #429489; FAAsT [COMSAT 3406-02, COMSAT 3406-03, CIDRA 3601-01, CIDRA 3601-02, CIDRA 3601-03, LAS CRUCES 3602-01, LAS CRUCES 3602-02].

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

Location: Caguas, Puerto Rico

(Start GPS Latitude/Longitude: [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 # 682882 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair-Caguas Group 11, consists of 7 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: COMSAT 3406-02, COMSAT 3406-03, CIDRA 3601-01, CIDRA 3601-02, CIDRA 3601-03, LAS CRUCES 3602-01, LAS CRUCES 3602-02.

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)

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

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

1. Feeder 3406-02 COMSAT Scope: 2EA.poles.
 - Replace one (1) 50ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
 - Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
2. Feeder COMSAT 3406-03 Scope: 16EA.poles.
 - Replace twelve (12) 50ft concrete H4 poles by twelve (12) 50ft galvanized steel S8 poles.
 - Replace four (4) 50ft concrete H6 poles by four (4) 50ft galvanized steel S8 poles.
3. Feeder 3601-01 Cidra Scope: 0EA. Poles.
 - No 428 PA work identified.
4. Feeder 3601-02 Cidra: 0EA. Poles.

- No 428 PA work identified.

5. Feeder 1 3601-03 Cidra Scope: 2EA. Poles.

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

6. Feeder 3602-01 Las Cruces Scope: 1EA. Poles.

- Replace one (1) 65ft concrete H6 pole by one (1) 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).

7. Feeder 3602-02 Las Cruces Scope: 3EA. Poles.

- Replace three (3) 45ft concrete H6 poles by three (3) 50ft galvanized steel S8 poles.

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 89,627.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 23,751.16</u>
Hazard Mitigation Total Cost =	\$ 113,378.16

(IV) HMP Cost-Effectiveness Calculations

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

HMR = (\$89,627.00 / \$449,346.00) x 100 = 19.95%

The cost of this Hazard Mitigation Proposal (HMP) is **19.95%** 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 (Engineering And Design Services (FAASt Global A&E 335168))	1.00	Lump Sum	(\$104,353.35)	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	\$650,014.59	Uncompleted

CRC Gross Cost \$545,661.24

Total 406 HMP Cost \$113,378.16

Total Insurance Reductions \$0.00

CRC Net Cost \$659,039.40

Federal Share (90.00%) \$593,135.46

Non-Federal Share (10.00%) \$65,903.94

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-11130(13041)	\$659,039.40	90 %	\$593,135.46	1/5/2023

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.
- 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

12/01/2022

Property insurance coverage for the electrical distribution facilities represented on this project are not insured or insurable. No insurance relief is anticipated. No Obtain and Maintain requirement will be made.

FEMA requires the applicant to take reasonable efforts to pursue claims to recover insurance proceeds that it is entitled to receive from its insurer(s). In the event that any insurance proceeds are received for these expenses those proceeds must be reduced from FEMA Public Assistance funding to ensure no duplication of benefits has occurred.

No duplication of benefits from insurance is anticipated for work described in this application. In the event any part or all costs are paid by an insurance policy, a duplication of benefits from insurance will occur. Applicant must notify grantee and FEMA of such recoveries and the Sub-Grant award amount must be reduced by actual insurance proceeds.

No insurance requirements will be required for this project. Insurance requirements are specific to permanent work to replace, restore, repair, reconstruct, or construct buildings, contents, equipment, or vehicles. (FEMA Recovery Policy FP 206-086-1).

No insurance narrative will be produced or uploaded into documents or attachments.

Olga Renta, PA Insurance Specialist, CRC Atlantic, PR

O&M Requirements

There are no Obtain and Maintain Requirements on **FAAST [Distribution Pole and Conductor Repair - Caguas Group 11] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST [Distribution Pole and Conductor Repair - Caguas Group 11] (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 Planning Board prior to initiating work and comply with any conditions of the permit. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.

- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa- *Epicrates inornatus* conservation measures are applicable for feeders: 3406-02, 3406-03, 3601-03, 3602-01 and 3602-02 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 #: 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.
- Endangered Species Act (ESA) - The below conservation measures apply to the following species: Puerto Rican Plain Pigeon, Puerto Rican Broad winged hawk and the Puerto Rican Sharp-shinned hawk. *Accipiter striatus venator* conservation measures are applicable for feeder: 3406-02. *Buteo platypterus brunescens* conservation measures are applicable for feeders: 3406-02 and 3406-03. *Patagioenas (Columba) inornata wetmorei* conservation measures are applicable for feeders: 3406-02, 3406-03, 3601-03, 3602-01 and 3602-02 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 plain pigeon (*Patagioenas inornata wetmorei* [*Columba inornata*]): April-September; Puerto Rican broad winged hawk (*Buteo platypterus*): December-June and Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*): 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.
- 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 - Caguas Group 11] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 8:58 AM AST

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 10:15 AM AST

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 \$659,039.40 for subaward number 11130 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

Project #	682324	PW#	11145	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - Caguas Group 13] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1241484; FAASt [Pole and Conductor Repair - Caguas Group 13] (RIO CAÑAS 3014-04, GURABO 3101-04, VEREDAS 3103-02, JUNCOS 3201-02, JUNCOS 2 13.2 KV 3205-08, SAN LORENZO II 3302-03)

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:** CAGUAS GROUP 13] (RIO CAÑAS 3014-04, GURABO 3101-04, VEREDAS 3103-02, JUNCOS 3201-02, JUNCOS 2 13.2 KV 3205-08, SAN LORENZO II 3302-03)
- **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:** 1967
- **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

1241484

FAASt [Pole and Conductor Repair - Caguas Group 13] (RIO CAÑAS 3014-04, GURABO

3101-04, VEREDAS 3103

INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 13 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 Caguas Region. These interconnected and inter-functional distribution feeders (sites) are part of the electrical distribution system. All the feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below as "GPS End" represent the end of the mainline backbone of each feeder.

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
RIO CAÑAS	3014-04	13			3 Phase	4.16	More than 20 Years
GURABO	3101-04	10			3 Phase	4.16	More than 20 Years
VEREDAS	3103-02	1			3 Phase	13.2	More than 20 Years
JUNCOS	3201-02	0			3 Phase	4.16	More than 20 Years
JUNCOS 2 13.2 KV	3205-08	0			3 Phase	13.2	More than 20 Years
SAN LORENZO II	3302-03	2			3 Phase	8.32	More than 20 Years

PROJECT SCOPE OF WORK

Below includes a breakdown of pole replacement by feeder for "Proposed 428 Public Assistance Scope of Work" and "Proposed

406 Hazard Mitigation Grant Program Scope of Work”, followed by descriptions of each work type specific to the Scope of Work for this group.

Proposed 428 Public Assistance Scope of Work:

Feeder 3014-04 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	4	45ft H4 Concrete Pole(s)	4
35ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1
35ft Wood Pole(s)	3	50ft H4 Concrete Pole(s)	3
40ft Wood Pole(s)	2	45ft H4 Concrete Pole(s)	2
40ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1
45ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1
45ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1

Feeder 3101-04 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	2	45ft H6 Concrete Pole(s)	2
35ft Wood Pole(s)	1	50ft H6 Concrete Pole(s)	1
40ft Wood Pole(s)	2	45ft H6 Concrete Pole(s)	2
40ft Concrete Pole(s)	1	45ft H6 Concrete Pole(s)	1
45ft Steel Pole(s)	1	45ft H4 Concrete Pole(s)	1
55ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
60ft Wood Pole(s)	2	60ft H8 Concrete Pole(s)	2

Feeder 3103-02Scope:

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

Feeder 3201-02 Scope:

- No 428 PA work identified

Feeder 3205-08 Scope:

- No 428 PA work identified

Feeder 3302-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	45ft H6 Concrete Pole(s)	1
40ft Wood Pole(s)	1	45ft 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 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)	24
70ft Galvanized Steel S8 pole(s)	2

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	\$13,988.00	\$13,988.00	\$0.00
Environmental Management	\$19,994.00	\$19,994.00	\$0.00
Engineering	\$61,855.00	\$51,089.60	\$10,765.40
Project Management	\$30,927.50	\$25,544.80	\$5,382.70
Distribution Line	\$618,550.00	\$510,896.00	\$107,654.00
Contingency	\$74,531.45	\$62,151.24	\$12,380.21
Total Project Cost Estimate:	\$819,845.95	\$683,663.64	\$136,182.31
FAASt Project # 682324 (428) Total		\$573,047.24	
FAASt Project # 682324 (406) Total		\$136,182.31	
FAASt A&E #335168 Total		\$110,616.40	
Total Cost		\$819,845.95	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$683,663.64

428 A&E Deduction (Global A&E FAASt 335168) -\$110,616.40

428 WTBC Project Total Cost: \$573,047.24

For detailed cost estimate, please refer to document labeled: 682324-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 13 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 682324-DR4339PR-Detailed SOW Caguas Group 13 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: 682324; FAASt Distribution Pole and Conductor Repair - Caguas Group 13 (Distribution)

Damage # 1241484; FAASt Distribution Pole and Conductor Repair - Caguas Group 13.

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

Location: Caguas, Puerto Rico

GPS Latitude/Longitude: 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 #682324 (Distribution Pole & Conductor Repair - Caguas Group 13).

The Distribution Pole and Conductor Repair- Caguas Group 13 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Rio Cañas 3014-04, Gurabo 3101-04, Veredas 3103-02, Juncos 3201-02, Juncos 2 13.2 KV 3205-08 & San Lorenzo II 3302-03.

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 PAPPG V3.1.

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

1. Feeder 3014-04 Scope (13ea):

- Replace six (6) 45ft concrete H4 pole by six (6) 50ft Galvanized Steel Pole S8.
- Replace three (3) 45ft concrete H6 pole by three (3) 50ft Galvanized Steel Pole S8.
- Replace three (3) 50ft concrete H4 pole by three (3) 50ft Galvanized Steel Pole S8.
- Replace one (1) 50ft concrete H6 pole by one (1) 50ft Galvanized Steel Pole S8.

2. Feeder 3101-04 Scope (10ea):

- Replace two (2) 45ft concrete H4 pole by two (2) 50ft Galvanized Steel Pole S8.
- Replace five (5) 45ft concrete H6 pole by five (5) 50ft Galvanized Steel Pole S8.
- Replace one (1) 50ft concrete H6 pole by one (1) 50ft Galvanized Steel Pole S8.
- Replace two (2) 60ft concrete H8 pole by two (2) 70ft Galvanized Steel Pole S8.

3. Feeder 3103-02 Scope (1ea):

- Replace one (1) 45ft concrete H4 pole by one (1) 50ft Galvanized Steel Pole S8.

4. Feeder 3201-02 Scope (0ea):

- No 406 Hazard Mitigation work identified at this time.

5. Feeder 3205-08 Scope (0ea):

- No 406 Hazard Mitigation work identified at this time.

6. Feeder 3302-03 Scope (2ea):

- Replace two (2) 45ft concrete H6 pole by two (2) 50ft Galvanized Steel Pole S8.

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 107,654.00
+ HM (Applicant A&E, Management & General Conditions) =	\$ 28,528.31
Hazard Mitigation Total Cost =	\$ 136,182.31

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$510,896.00

Net Cost of 406 HMP per DI: \$107,654.00

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

HMR = (\$107,654.00 / \$510,896.00) x 100 = 21.07% (< 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 (FAASt Global A&E 335168))	1.00	Lump Sum	(\$110,616.40)	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	\$683,663.64	Uncompleted

CRC Gross Cost \$573,047.24

Total 406 HMP Cost \$136,182.31

Total Insurance Reductions \$0.00

CRC Net Cost \$709,229.55

Federal Share (90.00%) \$638,306.60

Non-Federal Share (10.00%) \$70,922.95

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-11145(13043)	\$709,229.55	90 %	\$638,306.60	1/5/2023

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.
- 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

12/6/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 682324

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: \$709,229.55 (CRC Gross Cost \$573,047.24 + Mitigation Amount \$136,182.31)

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) #1241484:

FAASt [Pole and Conductor Repair - Caguas Group 13] (RIO CAÑAS 3014-04, GURABO 3101-04, VEREDAS 3103-02, JUNCOS 3201-02, JUNCOS 2 13.2 KV 3205-08, SAN LORENZO II 3302-03)

Location Description: CAGUAS GROUP 13] (RIO CAÑAS 3014-04, GURABO 3101-04, VEREDAS 3103-02, JUNCOS 3201-02, JUNCOS 2 13.2 KV 3205-08, SAN LORENZO II 3302-03)

GPS Coordinates: Start [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: \$709,229.55 (CRC Gross Cost \$573,047.24 + Mitigation Amount \$136,182.31)

-

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 [Pole and Conductor Repair - Caguas Group 13] (RIO CAÑAS 3014-04, GURABO 3101-04, VEREDAS 3103-02, JUNCOS 3201-02, JUNCOS 2 13.2 KV 3205-08, SAN LORENZO II 3302-03) 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 - Caguas Group 13] (Distribution)**.

406 Mitigation

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

Environmental Historical Preservation

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

Yes

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures
- Endangered Species Act (ESA) - Conservation Measures for Puerto Rican Boa (DLs 3014-04, 3101-04, 3103-02 and 3302-03):
 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: <https://ecos.fws.gov/ecp/species/6628>.
 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way.
 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue.
 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own.
 5. PR boas may seek shelter in

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

- Endangered Species Act (ESA) - Conservation Measures for *Patagioenas inornata wetmorei* (DL3101-04 and 3302-03): 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 plain pidgeon (*Patagioenas inornata wetmorei*): April-September. 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.
- Endangered Species Act (ESA) - Conservation Measures for *Eleutherodactylus cooki* (DL 3302-03): a. Inform all project personnel about the potential presence of the coquí guajón in areas where the proposed work will be conducted. A pre - construction meeting shall be conducted to inform all project personnel about the requirement of avoiding harm to the species. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. b. Project boundaries, buffer zones and areas to be excluded or protected shall be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. c. Erosion and Sedimentation Control Best Management Practices (BMP's) shall be included in the project scope of work when working within or adjacent to the coquí guajón habitat (e.g. rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species' habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. d. All project associated with streams, rivers, bridges, culverts, etc., shall follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane María. The guide is available at: <https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf>.
- 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 - 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 Pole and Conductor Repair - Caguas Group 13] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/16/2022 8:55 AM AST

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 10:10 AM AST

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 \$709,229.55 for subaward number 11145 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

Project #	682373	PW#	11165	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-00)		
Project Title	FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Small	Declaration Date	9/20/2017		
Activity Completion Date	9/20/2027	Incident Start Date	9/17/2017		
Process Step	Obligated	Incident End Date	11/15/2017		

Damage Description and Dimensions

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

Damage #1241485; FAASt [Pole and Conductor Repair - Caguas Group 14] (HUMACAO PUEBLO 2601-01, HUMACAO T.C. 13 KV 2603-09, CANDELERO 2604-01, CANDELERO 2604-02, CANDELERO 2604-03 , SAN LORENZO II 3302-04)

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:** CAGUAS GROUP 14 (HUMACAO PUEBLO 2601-01, HUMACAO T.C. 13 KV 2603-09, CANDELERO 2604-01, CANDELERO 2604-02, CANDELERO 2604-03 , SAN LORENZO II 3302-04)
- **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:** 1967
- **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

1241485

FAASt [Pole and Conductor Repair - Caguas Group 14] (HUMACAO PUEBLO 2601-01,

HUMACAO T.C. 13 KV 2603

INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 14 Project under DR-4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facilities.

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

FACILITIES

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

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
CANDELERO	2604-03	1			3 Phase	13.2	15 Years
SAN LORENZO II	3302-04	2			3 Phase	8.32	More than 20 Years

PROJECT SCOPE OF WORK

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

Proposed 428 Public Assistance Scope of Work:

Feeder 2604-03 Scope:

Remove	Quantity	Install	Quantity
35ft Wood Pole(s)	1	50ft Galvanized Steel S8 pole(s)	1

Feeder 3302-04 Scope:

Remove	Quantity	Install	Quantity

35ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Concrete Pole(s)	1	45ft 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 Caguas Regional Warehouse. Refer to Appendix L- Warehouse locations. No additional or temporary staging areas are required.

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

List of Permits Required:

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

Proposed 406 Hazard Mitigation Grant Program Scope of Work:

Replace damaged poles with higher-rated poles as referenced in Appendix H in compliance with AppendixJ 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)	2

TYPE OF PROJECT

Restoration to Codes/Standards: Restores the facility(ies) to pre-disaster function and approved codes/standards. This work is to comply with FEMA (Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR February 2020)

CODES AND STANDARDS

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

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

PROJECT ESTIMATE

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

Project Cost Estimate	Total	428 Public Assistance	406 Hazard Mitigation
Planning, Permits and Applications	\$1,614	\$1,614	\$0

Environmental Management	\$2,307	\$2,307	\$0
Engineering	\$6,801	\$5,879	\$922
Project Management	\$3,400	\$2,940	\$461
Distribution Line	\$68,009	\$58,791	\$9,218
Contingency	\$8,213	\$7,153	\$1,060
Total Project Cost Estimate:	\$90,344	\$78,684	\$11,661
FAASt Project # 682373 (428) Total		\$65,944	
FAASt Project # 682373 (406) Total		\$11,661	
FAASt A&E #335168 Total		\$12,740	
Total Cost		\$90,344	

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$78,684

428 A&E Deduction (Global A&E FAASt 335168) -\$12,740

428 Project Total Cost: \$65,944

For detailed cost estimate, please refer to document labeled: 682373-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 14 Rev0.xlsx

Project Notes:

1. The permanent staging area will be located inside the existing LUMA Caguas Technical Yard (18.239135, -66.036682), no additional or temporary staging areas are required. The expected use is to stage materials to be installed.
2. Refer to detailed SOW provided in document named: *682373-DR4339PR-Detailed SOW Caguas Group 14 Rev0.pdf*
3. For reference documents Appendix A thru L, see file labeled: *682373-DR4339PR-Detailed SOW Caguas Group 14 Rev0.pdf*. The corresponding Appendix files are in Documents section in GM.
4. For detailed cost estimate, please refer to document named: *682373-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 14 Rev0.xlsx*
5. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: *682373-DR4339PR-Detailed SOW Caguas Group 14 Rev0.pdf*.
6. 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: 682373 FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)

Damage #1241485; FAASt [Pole and Conductor Repair - Caguas Group 14

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

Location: Caguas, Puerto Rico

GPS Latitude/Longitude: 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 #682373 FAASt [Distribution Pole and Conductor Repair - Caguas Group 14]).

The Distribution Pole and Conductor Repair-Caguas Group 14 consists of 2 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Candellero 2604-03 and San Lorenzo II 3302-04.

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.

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

1. Feeder 2604-03 Scope (1ea):

- No 406 Hazard Mitigation work identified to replace one (1) 50ft galvanized steel S8 poles. In this case, the Mitigation is accomplished by 428 PA method of repair (MOR).

1. Feeder 3302-04 Scope (2ea):

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

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 9,218.00
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 2,443.00</u>
Hazard Mitigation Total Cost =	\$ 11,661.00

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$36,498.00

Net Cost of 406 HMP per DI: \$9,218.00

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

HMR = (\$9,218.00 / \$36,498.00) x 100 = 25.26% (< 100% 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 (A&E Deduction (Global A&E FAASSt 335168) Version 0)	1.00	Lump Sum	(\$12,740.00)	Uncompleted
9001 (Contract (FAASSt Project 136271))	1.00	Lump Sum	\$78,684.00	Uncompleted

CRC Gross Cost \$65,944.00

Total 406 HMP Cost \$11,661.00

Total Insurance Reductions \$0.00

CRC Net Cost \$77,605.00

Federal Share (90.00%) \$69,844.50

Non-Federal Share (10.00%) \$7,760.50

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11165(13048)	\$77,605.00	90 %	\$69,844.50	1/5/2023

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.
- The Recipient must submit its certification of the subrecipient's completion of all of its small projects and compliance with all environmental and historic preservation requirements within 180 days of the applicant's completion of its last small project, or the latest approved deadline, whichever is sooner.
- 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

12/23/2022

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.

12/19/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 682373

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: \$77,605.00 (CRC Gross Cost \$65,944.00 + Mitigation Amount \$11,661.00)

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) #1241485:

FAASt [Pole and Conductor Repair - Caguas Group 14] (HUMACAO PUEBLO 2601-01, HUMACAO T.C. 13 KV 2603-09, CANDELERO 2604-01, CANDELERO 2604-02, CANDELERO 2604-03, SAN LORENZO II 3302-04)

Location Description: CAGUAS GROUP 14 (HUMACAO PUEBLO 2601-01, HUMACAO T.C. 13 KV 2603-09, CANDELERO 2604-01, CANDELERO 2604-02, CANDELERO 2604-03, SAN LORENZO II 3302-04)

GPS Coordinates: Start [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: \$77,605.00 (CRC Gross Cost \$65,944.00 + Mitigation Amount \$11,661.00)

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 [Pole and Conductor Repair - Caguas Group 14] (HUMACAO PUEBLO 2601-01, HUMACAO T.C. 13 KV 2603-09, CANDELERO 2604-01, CANDELERO 2604-02, CANDELERO 2604-03, SAN LORENZO II 3302-04) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - Caguas Group 14] (Distribution)**.

Environmental Historical Preservation

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

Yes

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican plain pigeon (*Patagioenas inornata wetmorei* [*Columba inornata*]) are applicable for feeder 3302-04. The below conservation measures apply to the Puerto Rican plain pigeon 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 plain pigeon (*Patagioenas inornata wetmorei* [*Columba inornata*]): April-September 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.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa (*Epicrates inornatus*) are applicable for feeder 3302-04. 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 #: 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.

- Endangered Species Act (ESA) - Conservation Measures to be implemented for a Coquí Guajón (*Eleutherodactylus cooki*) are applicable for feeder 3302-04. a. Inform all project personnel about the potential presence of the coquí guajón in areas where the proposed work will be conducted. A pre -construction meeting shall be conducted to inform all project personnel about the requirement of avoiding harm to the species. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. b. Project boundaries, buffer zones and areas to be excluded or protected shall be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. c. Erosion and Sedimentation Control Best Management Practices (BMP's) shall be included in the project scope of work when working within or adjacent to the coquí guajón habitat (e.g. rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species' habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. d. All project associated with streams, rivers, bridges, culverts, etc., shall follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane María. The guide is available at: <https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf>
- 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 - Caguas Group 14] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L.

Reviewed On 12/29/2022 7:26 AM AST

Review Comments

Project ready for obligation.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/29/2022 9:35 AM AST

Review Comments

Recipient review completed. Project is ready for applicant review.

Project Signatures

Signed By Miller, Thomas

Signed On 01/03/2023

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	682180	PW#	11168	Project Type	Specialized
Project Category	F - Utilities			Applicant	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Pole and Conductor Repair - Mayagüez Group 10] (Distribution)			Event	4339DR-PR (4339DR)
Project Size	Small			Declaration Date	9/20/2017
Activity Completion Date	9/20/2027			Incident Start Date	9/17/2017
Process Step	Obligated			Incident End Date	11/15/2017

Damage Description and Dimensions

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

Damage #1241520; FAASt [AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 and SAN SEBASTIAN 2 7802-03]

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:** AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 AND SAN SEBASTIAN 2 7802-03
- **Facility Description:** The facilities are part of the feeder systems in the Mayagüez Region. These interconnected and interfunctional 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 – Mayagüez 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

1241520

FAAST [AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 and

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
AÑASCO	6101-05	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", followed by descriptions of each work type specific to the Scope of Work for this group.

Proposed 428 Public Assistance Scope of Work:

Feeder 6101-05 Scope:

Remove	Quantity	Install	Quantity
40ft Wood Pole(s)	1	45ft H4 Concrete Pole(s)	1
40ft Wood Pole(s)	1	45ft 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 (FAASt 335168)	\$1,076	\$1,076	\$0
Environmental Management (FAASt 335168)	\$1,538	\$1,538	\$0
Engineering (FAASt 335168)	\$4,738	\$3,867	\$872
Project Management (FAASt 335168)	\$2,369	\$1,933	\$436
Distribution Line	\$47,384	\$38,666	\$8,718
Contingency	\$5,711	\$4,708	\$1,003
Total Project Cost Estimate:	\$62,816	\$51,788	\$11,028
FAASt Project # 682180 (428) Total			\$43,374
FAASt Project # 682180 (406) Total			\$11,028
FAASt A&E #335168 Total			\$8,414
Total Cost			\$62,816

Please refer to Appendix H for Cost Estimate Details.

428 Work To Be Completed (WTBC): \$51,788

428 A&E Deduction (Global A&E FAASt 335168) -\$8,414

428 Project Total Cost: \$43,374

For detailed cost estimate, please refer to document labeled: 682180-DR4339PR-Appendix H - Detail Cost Estimate - Mayaguez Group 10 Rev0.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 682180-DR4339PR-Detailed SOW Mayaguez Group 10 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. This project is part of a FAAS project, please reference project 136271.

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

Project number: 682180: FAAS [Distribution Pole and Conductor Repair - Mayaguez Group 10] (Distribution)

Damage ##1241520; FAAS [AÑASCO 6101-05]

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

Location: Mayaguez, Puerto Rico

GPS Latitude/Longitude: (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 #679153 (Distribution Pole & Conductor Repair/Replacement).

The Distribution Pole and Conductor Repair - Mayaguez Group 10 consists of 1 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: (AÑASCO 6101-05).

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 (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 +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 6101-05 Scope: 2EA Poles

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

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) = \$ 8,718.00

+ HM (Applicant A&E, Management & General Conditions) = \$ 2,310.00

Hazard Mitigation Total Cost = **\$ 11,028.00**

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: \$33,666.00

Net Cost of 406 HMP per DI: \$8,718.00

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

HMR = (\$8,718.00/\$ 33,666.00) x 100 = 28.52%

* 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 - FAASt A&E PREPA)))	1.00	Lump Sum	(\$8,414.00)	Uncompleted
9001 (9001 (Contract (Total Cost Estimate - FAASt 136271)))	1.00	Lump Sum	\$51,788.00	Uncompleted

CRC Gross Cost	\$43,374.00
Total 406 HMP Cost	\$11,028.00
Total Insurance Reductions	\$0.00
<hr/>	
CRC Net Cost	\$54,402.00
Federal Share (90.00%)	\$48,961.80
Non-Federal Share (10.00%)	\$5,440.20

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-11168(13050)	\$54,402.00	90 %	\$48,961.80	1/5/2023

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 all of its small projects and compliance with all environmental and historic preservation requirements within 180 days of the applicant's completion of its last small project, or the latest approved deadline, whichever is sooner.
- 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

12/19/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 682180

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: \$54,402.00 (CRC Gross Cost \$43,374.00 + Mitigation Amount \$11,028.00)

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) #1241520:

FAAST [AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 and SAN SEBASTIAN 2 7802-03]

Location Description: AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 AND SAN SEBASTIAN 2 7802-03

GPS Coordinates: Start [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: \$54,402.00 (CRC Gross Cost \$43,374.00 + Mitigation Amount \$11,028.00)

-

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 [AÑASCO 6101-02, AÑASCO 6101-04, AÑASCO 6101-05, BOQUERON 6702-04, SAN SEBASTIAN 2 7802-01 and SAN SEBASTIAN 2 7802-03] 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 10] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAAST [Distribution Pole and Conductor Repair - Mayagüez Group 10] (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 Puerto Rican Boa (DL6101-05): 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 #: 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 - 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 Pole and Conductor Repair - Mayagüez Group 10] (Distribution)**.

Final Reviews

Final Review

Reviewed By MARTINEZ SANTIAGO, ISRAEL

Reviewed On 12/27/2022 4:41 PM AST

Review Comments

FEMA Final Review completed. Project ready for Recipient Review.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/28/2022 10:24 AM AST

Review Comments

Recipient review completed. Project is ready for applicant review.

Project Signatures

Signed By Miller, Thomas

Signed On 12/28/2022