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

IN RE:	**CASE NO. NEPR-MI-2021-0002**
IN RE: REVIEW OF THE PUERTO RICO ELECTRIC POWER AUTHORITY'S 10-YEAR INFRASTRUCTURE PLAN-DECEMBER 2020	**SUBJECT: Motion Submitting Five FEMA Approvals of Project, Request for Confidential Treatment, and Supporting Memorandum of Law**

MOTION SUBMITTING FIVE FEMA APPROVALS OF PROJECT, REQUEST FOR CONFIDENTIAL TREATMENT AND SUPPORTING MEMORANDUM OF LAW

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC[1], and **LUMA Energy ServCo, LLC**[2], (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 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, the progress of all ongoing efforts related to the approval of the

[1] Register No. 439372.
[2] Register No. 439373.

submitted projects not yet approved by the Energy Bureau. This Energy Bureau thereafter determined 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 6] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Bayamon Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (Distribution)", and "FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)" T&D Projects.

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 - Caguas Group 6] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Bayamon Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (Distribution)", and "FAASt [ENERGY MANAGEMENT SYSTEM (EMS)]

(Telecommunication)" T&D Project 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 a copy of approval by FEMA of the projects received on October 14, 2022.[3] *See* **Exhibit 1** to this Motion. The documents state FEMA's approval and include the cost obligated for the projects.

5. LUMA is submitting herein a redacted public version of the project's FEMA approval (**Exhibit 1**) protecting confidential information associated with Critical Energy Infrastructure Information ("CEII"). The FEMA approvals of the "FAASt [Distribution Pole and Conductor Repair - Caguas Group 6] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Bayamon Group 3] (Distribution)", "FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (Distribution)", and "FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)" 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.

[3] 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.

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 "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 regards to access to validated Trade Secret Information and CEII:

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

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

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

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

B. Request for Confidentiality

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

CEII under seal of confidentiality.[4] In at least two proceedings on Data Security,[5] and Physical Security,[6] this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

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

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

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

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

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

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

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

> Critical energy infrastructure information means specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that:
> (i) Relates details about the production, generation, transportation, transmission, or distribution of energy;
> (ii) Could be useful to a person in planning an attack on critical infrastructure;
> (iii) Is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552; and
> (iv) Does not simply give the general location of the critical infrastructure.

Id.

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

17. The Critical Infrastructure Information Act of 2002, 6 U.S.C. §§ 671-674 (2020), part of the Homeland Security Act of 2002, protects critical infrastructure information ("CII").[7] 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).[8]

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[7] Regarding protection of voluntary disclosures of critical infrastructure information, 6 U.S.C. § 673, provides in pertinent part, that CII:

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

[8] CII includes the following types of information:

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

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

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

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

C. Identification of Confidential Information

20. In compliance with the Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, below, find a table summarizing the 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 - Caguas Group 6] (Distribution)	Pages 1, 2, 5, and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 24, 2022
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (Distribution)	Pages 1, 2, 5, and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 24, 2022
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Bayamon Group 3] (Distribution)	Pages 1, 2, 5, and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 24, 2022
Exhibit 1	FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (Distribution)	Pages 1, 2, 4, and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 24, 2022

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 [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)	Pages 1 and 10	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 24, 2022

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 Katiuska Bolaños-Lugo, kbolanos@diazvaz.law.

In San Juan, Puerto Rico, on this 24th day of October 2022.

DLA Piper (Puerto Rico) LLC
500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9132
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/s/ Yahaira De la Rosa Algarín
Yahaira De la Rosa Algarín
RUA NÚM. 18,061
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Exhibit 1

FEMA Approvals

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	674096 **P/W #** 10935	**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 6] (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
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1231774; FAASt [Pole and Conductor Repair - Caguas Group 6] (Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05 , Comerío 9703-01 , Comerío 9703-02 , Comerío 9703-03)

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:** Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01, Comerío 9703-02 and Comerío 9703-03
- **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

1231774

FAASt [Pole and Conductor Repair - Caguas Group 6] (Gautier Benitez 3007-03, Villa Del

Rey 3010-01,

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 6 Project under DR-4339-PR Public Assistance. The document provides a description of the project including scope, schedule, and cost estimates as well as Environmental & Historical Preservation ("EHP") requirements and proposed 406 hazard mitigation work. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facilities.

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

Facilities

The facilities listed below are part of the feeder systems in the 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	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Gautier Benitez	3007-03	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Villa Del Rey	3010-01	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Gautier Benitez Pds	3015-05	REDACTED	REDACTED	3 Phase	13.2	More than 20 Years
Comerío	9703-01	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Comerío	9703-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Comerío	9703-03	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years

Project Scope of Work

Proposed 428 Public Assistance Scope of Work:

Feeder 3007-03 Scope:

• Remove one 35ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft wood pole and install one 50ft galvanized steel S8 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 3010-01 Scope:

• No 428 PA work identified at this time, refer to 406 HMGP description below.

Feeder 3015-05 Scope:

• No 428 PA work identified at this time, refer to 406 HMGP description below.

Feeder 9703-01 Scope:

• Remove two 35ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove twenty-four 40ft wood poles and install twenty-four 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 40ft wood poles and install three 50ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 40ft wood poles and install three 50ft galvanized steel S8 poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft wood pole and install one 70ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 45ft wood poles and install three 50ft galvanized steel S8 poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove four 60ft wood poles and install four 65ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 60ft wood poles and install two 50ft galvanized steel S8 poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft wood pole and install one 50ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9703-02 Scope:

• Remove one 40ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 50ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 50ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9703-03 Scope:

• Remove nine 35ft wood poles and install nine 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft concrete pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft concrete pole and install one 70ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 50ft wood poles and install two 65ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 60ft wood pole and install one 70ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Project Estimate

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

Project Cost Estimate	428 Public Assistance
Planning, Permits and Applications **(FAASt 335168)**	$39,274
Environmental Management **(FAASt 335168)**	$56,137
Engineering **(FAASt 335168)**	$158,196
Project Management **(FAASt 335168)**	$79,098
Distribution Line	$1,581,961
Contingency	$191,467
Total Project Cost Estimate	**$2,106,133**
FAASt Project #674096 (428) Total	**$1,773,428**
FAASt A&E #335168 Total	**$332,705**

Work To Be Completed (WTBC): $2,106,133

A&E Deduction (Global A&E FAASt 335168): - $332,705

Project Total Cost: $2,106,133 - $332, 705 (Global A&E FAASt 335168) = $1,773,428

For detailed cost estimate, please refers to document labeled: 674096-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 6 Rev1.xlsx.

Project Notes:

1. The Applicant provided a SOW and cost estimate in Grants Manger which has been modified to follow new SOW and cost estimate, after informal RFI. Refer to detailed SOW and cost estimate provided in document 674096-DR4339PR-Detailed SOW Caguas Group 6 Rev1 and 674096-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 6 Rev1.xlsx.

2. For reference documents Appendix A thru K, see file labeled: 674096-DR4339PR-Appendix A-J.zip

3. For EHP Requirements, refer to pages 11 to 14 of the detailed SOW and reference documents: Appendix J & K.

4. This project is part of a FAAST (donor) project, [136271] MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt.

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

406 HMP Scope

Project number: 674096

Damage #1231774; FAASt [Pole and Conductor Repair - Caguas Group 6] (Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01, Comerío 9703-02, Comerío 9703-03).

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 # 674096 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair - Caguas Group 6 consists of 6 interconnected and inter-functional distribution

feeders (sites) establish the electrical distribution system as follow: DI#1231774; FAASt [Pole and Conductor Repair - Caguas Group 6] (Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01 , Comerío 9703-02 , Comerío 9703-03).

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)*

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 3007-03 Scope: 6EA.Poles

Replace four (4) 45ft concrete H4 poles by four (4) 50ft galvanized steel S8 poles.
Replace one (1) 45ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
No 406 Hazard Mitigation work identified to place one (1) 50ft galvanized steel S8 pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

2.Feeder 3010-01 Scope:

No 406 Hazard Mitigation work identified at this time.

3.Feeder 3015-05 Scope:

No 406 Hazard Mitigation work identified at this time.

4.Feeder 9703-01 Scope: 43EA. Poles.

Replace twenty-six (26) 45ft concrete H4 poles by twenty-six (26) 50ft galvanized steel S8 poles.
Replace three (3) 50ft concrete H6 poles by three (3) 50ft galvanized steel S8 poles.
No 406 Hazard Mitigation work identified to place nine (9) 50ft galvanized steel S8 pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
No 406 Hazard Mitigation work identified to place one (1) 70ft galvanized steel S8 pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
No 406 Hazard Mitigation work identified to replace four (4) 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. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
Replace four (4) 65ft concrete H6 poles "self-support" concrete bases {[(5'(L) x 5'(W) x 10'(D)) - (1.75'(L) x 1.75'(W) x 9'(D))] / 27} = 8.5 CY; by four (4) 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY - 8.5CY) x 4ea] = 8CY.

5.Feeder 9703-02 Scope: 6EA. Poles.

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 H6 pole by one (1) 50ft galvanized steel S8 pole.
No 406 Hazard Mitigation work identified to place one (1) 50ft galvanized steel S8 pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

6.Feeder 9703-03 Scope: 18EA. Poles

Replace twelve (12) 45ft concrete H4 poles by twelve (12) 50ft galvanized steel S8 poles.
Replace two (2) 50ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
No 406 Hazard Mitigation work identified to place two (2) 70ft galvanized steel S8 pole. In these cases, the Mitigation is accomplished by the 428

PA method of repair (MOR).

No 406 Hazard Mitigation work identified to replace two (2) 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. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

Replace two (2) 65ft concrete H6 poles "self-support" concrete bases {[(5'(L) x 5'(W) x 10'(D)) - (1.75'(L) x 1.75'(W) x 9'(D))] / 27} = 8.5 CY; by two (2) 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY - 8.5CY) x 2ea] = 4CY.

-

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	$252,057.00
+ HM (Applicant A&E, Management & General Conditions) =	$ 66,795.00
Hazard Mitigation Total Cost =	$ 318,852.00

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(IV) HMP Cost-Effectiveness Calculations

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

HMR = ($252,057.00 /$1,210,248.00) x 100 = 20.83%

The cost of this Hazard Mitigation Proposal (HMP) is **20.83%** of the repair or restoration costs and is deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April2018, 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 effective calculation should be taken before CEF Factors, Soft Costs, or other Factors.**

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

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (Engineering And Design Services (FAASt Global A&E 335168)))	1.00	Lump Sum	($332,705.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (9001 (Contract (FAASt Project 136271)))	1.00	Lump Sum	$2,106,133.00	Uncompleted

CRC Gross Cost	$1,773,428.00
Total 406 HMP Cost	$318,852.00
Total Insurance Reductions	$0.00
CRC Net Cost	$2,092,280.00
Federal Share (90.00%)	$1,883,052.00
Non-Federal Share (10.00%)	$209,228.00

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-10935(12660)	$2,092,280.00	90 %	$1,883,052.00	10/14/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

8/31/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 674096

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: $2,092,280.00 (CRC Gross Amount $1,773,428.00 + Mitigation Amount $318,852.00)

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) #1231774:

FAASt [Pole and Conductor Repair - Caguas Group 6] (Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01, Comerío 9703-02, Comerío 9703-03)

Location Description: Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01, Comerío 9703-02 and Comerío 9703-03

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: $2,092,280.00 (CRC Gross Amount $1,773,428.00 + Mitigation Amount $318,852.00)

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 6] (Gautier Benitez 3007-03, Villa Del Rey 3010-01, Gautier Benitez Pds 3015-05, Comerío 9703-01, Comerío 9703-02, Comerío 9703-03) 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 6] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - Caguas Group 6] (Distribution)**.

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- 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.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - The below conservation measures apply to the following species: Puerto Rican Plain Pigeon and the Puerto Rican broad-winged hawk. 8. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter

buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican plain pigeon (Patagioenas inornata wetmorei [Columba inornata]): April-September and Puerto Rican broad -winged hawk (Buteo platypterus): December-June. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. Data should also include a photo of the nest and eggs, relocation site GPS coordinates, and the time and date of the relocation. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.

- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are, found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa-sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.
- Executive Order 11988 - Floodplains 1. 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. 2. Debris 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 work.

EHP Additional Info

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

Final Reviews

Final Review

Reviewed By MARTINEZ SANTIAGO, ISRAEL **Reviewed On** 09/22/2022 9:35 AM EDT

Review Comments

FEMA Final Review Completed. Project ready for Recipient Review.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/22/2022 11:24 AM EDT

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 $2,092,280.00 for subaward number 10935 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 Nieves, Ezequiel **Signed On** 10/11/2022

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Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	674088 **P/W #** 10933	**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 3] (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
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1231761; FAASt [Pole and Conductor Repair - Caguas Group 3] (Las Piedras 2801-02 , Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3201-04, Juncos 2 13.2 kV 3205-07, San Lorenzo 3301-01, San Lorenzo Ii 3302-020

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:** Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3205-07, Juncos 3205-07, San Lorenzo Ii 3302-02 and San Lorenzo 3301-01
- **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

1231761

FAASt [Pole and Conductor Repair - Caguas Group 3] (Las Piedras 2801-02 , Las Piedras

2801-03, Puebl

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 3 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	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Las Piedras	2801-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 years
Las Piedras	2801-03	REDACTED	REDACTED	3 Phase	8.32	More than 20 years
Pueblito Del Rio	2803-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 years
Juncos	3201-04	REDACTED	REDACTED	3 Phase	4.16	More than 20 years
Juncos 2 13.2 kV	3205-07	REDACTED	REDACTED	3 Phase	13.2	More than 20 years
San Lorenzo	3301-01	REDACTED	REDACTED	3 Phase	8.32	More than 20 years
San Lorenzo II	3302-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 years

Project Scope of Work

Proposed 428 Public Assistance Scope of Work:

Feeder 2801-02 Scope:

• Remove one 35ft wood pole and install one 45ft S3 galvanized steel pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 2801-03 Scope:

• Remove three 35ft concrete poles and install three 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft concrete pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft concrete pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft steel pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 50ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 50ft wood poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 2803-02 Scope:

• Remove one 30ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove eight 35ft wood poles and install eight 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 35ft wood poles and install three 50ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft wood pole and install one 50ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft wood pole and install one 65ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove eight 40ft wood poles and install eight 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 50ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft wood pole and install one 65ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 55ft wood poles and install two 65ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 60ft wood poles and install three 65ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 3201-04 Scope:

• Remove one 35ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 3205-07 Scope:

• Remove one 35ft concrete pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 65ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft wood pole and install one 65ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 3301-01 Scope:

• Remove one 40ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 3302-02 Scope:

• Remove two 40ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft steel pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Project Estimate

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

Project Cost Estimate	428 Estimate	Total
Planning, Permits and Applications	$32,280	
Environmental Management	$46,140	
Project Management	$125,967	
Engineering	$62,983	
Construction	$1,259,665	
Contingency	$152,703	
Total Project Estimate	**$1,679,738**	
	FAASt Project #674088 (428) Total	**$1,412,368**
	FAASt A&E #335168 Total	**$267,370**

Work To Be Completed (WTBC): $1,679,738

A&E Deduction (Global A&E FAASt 335168) -$267,370

Project Total Cost: $1,412,368

For detailed cost estimate, please refers to document labeled: 674088-DR4339PR-Appendix H - Detail Cost Estimate - Caguas Group 3 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 674088-DR4339PR-Detailed SOW Caguas Group 3 Rev0.pdf.
2. For reference documents Appendix A thru K, see files labeled: 674088-DR4339PR-Appendix A-K
3. For EHP Requirements, refer to pages 11 to 14 of the detailed SOW and reference documents: Appendix J & K.
4. This project is part of FAASt Project (Donor) 136271- MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.
5. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335168 - FAASt A&E PREPA).

406 HMP Scope

Project number: 674088; FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (Distribution)

Damage #1231761; FAASt [Pole and Conductor Repair - Caguas Group 3] (Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3201-04, Juncos 2 13.2 kV 3205-07, San Lorenzo 3301-01, San Lorenzo II 3302-020)

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 #674088 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair-Caguas Group 3 consists of 7 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follows: Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3201-04, Juncos 2 13.2 kV 3205-07, San Lorenzo 3301-01, San Lorenzo II 3302-02).

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 2801-02 Scope (1ea):
   - No 406 Mitigation work identified at this time.

2. Feeder 2801-03 Scope: (17ea):
   - Replace six (6) 45ft concrete H4 poles by six (6) 50ft galvanized steel S8 poles.
   - Replace eight (8) 45ft concrete H6 poles by eight (8) 50ft galvanized steel S8 poles.
   - Replace three (3) 50ft concrete H4 poles by three (3) 50ft galvanized steel S8 poles.

3. Feeder 2803-02 Scope (33ea):
   - Replace sixteen (16) 45ft concrete H4 poles by sixteen (16) 50ft galvanized steel S8 poles.
   - Replace four (4) 45ft concrete H6 poles by four (4) 50ft galvanized steel S8 poles.
   - Replace five (5) 50ft concrete H4 poles by five (5) 50ft galvanized steel S8 poles.
   - Replace one (1) 50ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
   - No 406 Hazard Mitigation work identified to replace seven (7) 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. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
   - Replace four (4) 65ft concrete H6 poles "self-support" concrete bases {[(5'(L) x 5'(W) x 10'(D)) - (1.75'(L) x 1.75'(W) x 9'(D))] / 27} = 8.5 CY; by four (4) 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY - 8.5CY) x 4ea] = 8CY.

4. Feeder 3201-04 Scope (1ea):
   - Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.

5. Feeder 3205-07 Scope (3ea):
   - Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 poles.
   - No 406 Hazard Mitigation work identified to replace two (2) 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. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
   - Replace two (2) 65ft concrete H6 poles "self-support" concrete bases {[(5'(L) x 5'(W) x 10'(D)) - (1.75'(L) x 1.75'(W) x 9'(D))] / 27} = 8.5 CY; by two (2) 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY - 8.5CY) x 2ea] = 4CY.

6. Feeder 3301-01 Scope (1ea):
   - Replace one (1) 45ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.

7. Feeder 3302-02 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) =	$ 228,975.00
+ HM (Applicant A&E, Management & General Conditions) =	$ 60,678.00
Hazard Mitigation Total Cost =	**$ 289,653.00**

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HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: $1,241,770.00

Net Cost of 406 HMP per DI: $228,975.00

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

HMR = ($228,975.00/ $1,241,770.00) x 100 = 18.44% (< 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 #335168))	1.00	Lump Sum	($267,370.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (Contract)	1.00	Lump Sum	$1,679,738.00	Uncompleted

CRC Gross Cost	$1,412,368.00
Total 406 HMP Cost	$289,653.00
Total Insurance Reductions	$0.00
CRC Net Cost	$1,702,021.00
Federal Share (90.00%)	$1,531,818.90
Non-Federal Share (10.00%)	$170,202.10

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-10933(12659)	$1,702,021.00	90 %	$1,531,818.90	10/14/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

8/31/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 674088

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: $1,702,021.00 (CRC Gross Amount $1,412,368.00 + Mitigation Amount $289,653.00)

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) #1231761:

FAASt [Pole and Conductor Repair - Caguas Group 3] (Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3201-04, Juncos 2 13.2 kV 3205-07, San Lorenzo 3301-01, San Lorenzo Ii 3302-020

Location Description: Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3205-07, Juncos 3205-07, San Lorenzo Ii 3302-02 and San Lorenzo 3301-01

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: $1,702,021.00 (CRC Gross Amount $1,412,368.00 + Mitigation Amount $289,653.00)

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 3] (Las Piedras 2801-02, Las Piedras 2801-03, Pueblito Del Rio 2803-02, Juncos 3201-04, Juncos 2 13.2 kV 3205-07, San Lorenzo 3301-01, San Lorenzo Ii 3302-020 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 3] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - Caguas Group 3] (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 - 1. 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. 2. Debris 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 work.
- Endangered Species Act (ESA) - Conservation Measures for Puerto Rican Boa: 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER

phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are, found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa-sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.

- Endangered Species Act (ESA) - Conservation measures for Puerto Rican parrot, Puerto Rican plain pigeon, Puerto Rican broad-winged hawk and Puerto Rican sharp-shinned hawk: 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; 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: 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 coqui 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 were 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: i. https://www.fws.gov/southeast/pdf/guidelines/post-disaster-guidance-for-projects-in-streams-and-waterways-of-puerto-rico.pdf
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- 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. 3.

- 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 3] (Distribution)**.

Final Reviews

Final Review

Reviewed By MARTINEZ SANTIAGO, ISRAEL **Reviewed On** 09/19/2022 8:28 AM EDT

Review Comments

FEMA Final Review completed. Project ready for Recipient review.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/19/2022 9:26 AM EDT

Review Comments

Recipient review was 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 $1,702,021.00 for subaward number 10933 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 Nieves, Ezequiel **Signed On** 10/11/2022

v0

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	673843 **P/W #** 10922	**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 3] (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
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1231557; FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-01, Barrio Piñas 9403-03, Unibon 9501-02, Monterrey 9502-01, Monterrey 9502-02))

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 Pole and Conductor Repair - Bayamon Group 3
- **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

1231557

FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-0

Introduction

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair - Bayamon Group 3 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	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Vega Baja 1	9001-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Toa Alta	9401-01	REDACTED	REDACTED	3 Phase	4.16	More than 20 Years
Barrio Piñas	9403-03	REDACTED	REDACTED	3 Phase	4.16	More than 20 Years
Unibon	9501-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Monterrey	9502-01	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Monterrey	9502-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years

Project Scope of Work

Proposed 428 Public Assistance Scope of Work:

Feeder 9001-02 Scope:

• Remove three 40ft wood poles and install three 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 40ft wood poles and install one 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood poles and install one 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 50ft galvanized steel S8 pole and install one 50ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9401-01 Scope:

• Remove one 30ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 30ft wood poles and install one 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove five 35ft wood poles and install five 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 35ft wood poles and install three 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove four 40ft wood poles and install four 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove three 40ft wood poles and install three 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 45ft concrete poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9403-03 Scope:

• Remove one 40ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 55ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9501-02 Scope:

• Remove two 35ft wood poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 45ft wood poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9502-01 Scope:

• Remove one 40ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 45ft concrete pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 55ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 55ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 9502-02 Scope:

• No 428 PA work identified at this time, refer to 406 HMGP description below.

Project Estimate

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

Project Cost Estimate	428 Public Assistance
Planning, Permits and Applications	$22,596
Environmental Management	$32,298
Engineering	$80,601
Project Management	$40,301
Distribution Line	$806,013
Contingency	$98,181
Total Project Cost Estimate	**$1,079,990**
FAASt Project #673843 (428) Total	**$904,194**
FAASt A&E #335168	**$175,796**

Work To Be Completed (WTBC): $1,079,990

A&E Deduction (Global A&E FAASt 335168) -$175,796

Project Total Cost: $904,194

For detailed cost estimate, please refers to document labeled: 673843-DR4339PR-Appendix H-Detail Cost Estimate-Bayamon Group 3 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 673843-DR4339PR-Detailed SOW Bayamon Group 3 Rev0.pdf.
2. For reference documents Appendix A thru K, see file labeled: 673843-DR4339PR-Appendix A-K.

3. For EHP Requirements, refer to pages 9 to 12 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: 673843

Damage #1231557; FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-01, Barrio Piñas 9403-03, Unibon 9501-02, Monterrey 9502-01, Monterrey 9502-02).

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

Location: Bayamon, Puerto Rico

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 #673843 [Distribution Critical Poles & Conductors Repair/Replacement].**

The Distribution Pole and Conductor Repair-Bayamon Group 3 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-01, Barrio Piñas 9403-03, Unibon 9501-02, Monterrey 9502-01, Monterrey 9502-02).

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:**

1.Feeder 9001-02 Scope: 7EA. poles.

Replace five (5) 45ft concrete H4 poles by five (5) 50ft galvanized steel S8 poles.
Replace one (1) 45ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.
Replace one (1) 45ft steel pole by one (1) 50ft galvanized steel S8 pole. No mitigation identified. Mitigation is accomplished by the 428 PA method of repair (MOR).

2.Feeder 9401-01 Scope: 20EA poles.

Replace twelve (12) 45ft concrete H4 poles by twelve (12) 50ft galvanized steel S8 poles.
Replace eight (8) 45ft concrete H6 poles by eight (8) 50ft galvanized steel S8 poles.

3.Feeder 9403-03 Scope: 2EA. Scope:

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

4.Feeder 9501-02 Scope: 5EA poles.

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

5.Feeder 9502-01 Scope: 8EA poles.

Replace three (3) 45ft concrete H4 poles by three (3) 50ft galvanized steel S8 poles.
Replace five (5) 45ft concrete H4 poles by five (5) 50ft galvanized steel S8 poles.

6.Feeder 9502-02 Scope:

No 406 HM identified at this time.

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$179,969.00
+ HM (Applicant A&E, Management & General Conditions) =	$47,692.00
Hazard Mitigation Total Cost =	$ 227,661.00

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: $781,271.00

Net Cost of 406 HMP per DI: $179,969.00

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

HMR = ($179,969.00 / $781,271.00) x 100% = 23.04%

The cost of this Hazard Mitigation Proposal (HMP) is **23.04%** of the repair or restoration costs and is deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April2018, Chapter 2, VII., Section C, ___ 15%Rule, **_X_ 100% Rule**, ___ BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost effective requirements.

* 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	($175,796.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (Contract (FAASt Project 136271))	1.00	Lump Sum	$1,079,990.00	Uncompleted

CRC Gross Cost	$904,194.00
Total 406 HMP Cost	$227,661.00
Total Insurance Reductions	$0.00
CRC Net Cost	$1,131,855.00
Federal Share (90.00%)	$1,018,669.50
Non-Federal Share (10.00%)	$113,185.50

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-10922(12658)	$1,131,855.00	90 %	$1,018,669.50	10/14/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

8/24/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 673843

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: $1,131,855.00 (CRC Gross Amount $904,194.00 + Mitigation Amount $227,661.00)

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) #1231557:

FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-01, Barrio Piñas 9403-03, Unibon 9501-02, Monterrey 9502-01, Monterrey 9502-02))

Location Description: Distribution Pole and Conductor Repair - Bayamon Group 3

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: $1,131,855.00 (CRC Gross Amount $904,194.00 + Mitigation Amount $227,661.00)

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 [Distribution Pole and Conductor Repair-Bayamon Group 3] (Vega Baja 1 9001-02, Toa Alta 9401-01, Barrio Piñas 9403-03, Unibon 9501-02, Monterrey 9502-01, Monterrey 9502-02)) 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-Bayamon Group 3] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (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.
- 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.
- 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) - Puerto Rican Boa Conservation Measures: 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) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Distribution Pole and Conductor Repair-Bayamon Group 3] (Distribution)**.

Final Reviews

Final Review

Reviewed By PADRO ZAYAS, VICTORIA I. **Reviewed On** 09/09/2022 12:38 PM EDT

Review Comments

FEMA Final Review has been completed. Project ready for Recipient Review.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/09/2022 2:47 PM EDT

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 $1,131,855.00 for subaward number 10922 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 Nieves, Ezequiel **Signed On** 09/14/2022

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Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	673771 **P/W #** 10909	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (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
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1231506; FAASt [Pole and Conductor Repair - Arecibo Group 1] (Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02)

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 Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02
- **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
- **Location Description:** 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.
- **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

1231506

FAASt [Pole and Conductor Repair - Arecibo Group 1] (Dominguito 8010-01, Manatí 8404-03, Manatí 8404

Introduction

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

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

Facilities

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

Name	Feeder Number	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Dominguito	8010-01	REDACTED	REDACTED	3 Phase	7.2	More than 20 Years
Manatí 13.2 kV	8404-03	REDACTED	REDACTED	3 Phase	13.2	More than 20 Years
Manatí 13.2 kV	8404-04	REDACTED	REDACTED	3 Phase	13.2	More than 20 Years
Cruce Davila	8501-02	REDACTED	REDACTED	3 Phase	4.16	17 Years
Ciales	8701-01	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years
Ciales	8701-02	REDACTED	REDACTED	3 Phase	8.32	More than 20 Years

Project Scope of Work

Proposed 428 Public Assistance Scope of Work:

Feeder 8010-01 Scope:

- Remove twenty-seven 35ft wood poles and install twenty-seven 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
- Remove seventeen 35ft wood poles and install seventeen 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
- Remove one 35ft wood poles and install one 50ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
- Remove seven 40ft wood poles and install seven 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
- Remove three 40ft wood poles and install three 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 40ft wood poles and install two 50ft galvanized steel S8 poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 45ft wood pole and install one 50ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 8404-03 Scope:

• Remove one 35ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 35ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 35ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove two 35ft wood poles and install two 50ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 40ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 40ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 40ft wood pole and install one 50ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove two 40ft concrete poles and install two 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 40ft concrete pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove one 45ft wood pole and install one 50ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 8404-04 Scope:

• Remove one 30ft wood pole and install one 45ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove two 40ft wood poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 8501-02 Scope:

• Remove four 40ft wood poles and install four 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove two 45ft galvanized steel poles and install two 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Feeder 8701-01 Scope:

• No 428 PA work identified at this time, refer to 406 HMGP description below.

Feeder 8701-02 Scope:

• Remove seven 45ft wood poles and install seven 45ft H4 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.
• Remove four 45ft wood poles and install four 45ft H6 concrete poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

Project Estimate

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

Project Cost Estimate	428 Public Assistance
Planning, Permits and Applications	$48,420.00
Environmental Management	$69,210.00
Engineering	$168,813.50
Project Management	$84,406.75
Distribution Line	$1,688,135.00
Contingency	$205,898.53

FAASt Project #673771 (428) Total	**$1,894,033.53**
FAASt A&E #335168	**$370,850.25**

Work To Be Completed (WTBC): $2,264,883.78

A&E Deduction (Global A&E FAASt 335168) -$370,850.25

Project Total Cost: $1,894,033.53

For detailed cost estimate, please refers to document labeled: 673771-DR4339PR-Appendix H - Detail Cost Estimate - Arecibo Group 1 Rev0.xlsx.

Project Notes:

1. Refer to detailed SOW provided in document 673771-DR4339PR-Detailed SOW Arecibo Group 1 Rev0.pdf

2. For EHP Requirements, refer to pages 10 to 13 of the detailed SOW and reference documents: Appendix J & K.

3. 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: 673771

Damage #1231506; FAASt [Pole and Conductor Repair - Arecibo Group 1] (Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02).

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

Location: Arecibo, Puerto Rico

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 #673771 [Distribution Critical Poles & Conductors Repair/Replacement].**

The Distribution Pole and Conductor Repair- Arecibo Group 1 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: (Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02).

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:

1.Feeder 8010-01 Scope: 58EA.poles.

Replace thirty-four (34) 45ft concrete H4 poles by thirty-four (34) 50ft galvanized steel S8 poles.
Replace twenty (20) 45ft concrete H6 poles by twenty (20) 50ft galvanized steel S8 poles.
Replace one (1) 45' concrete H6 pole "self-support" concrete base {[(4.5'(L) x 4.5'(W) x 9'(D)) - (1.5'(L) x 1.5'(W) x 8'(D))] / 27} = 6 CY; by one (1) 50' galvanized steel S8 pole "self-support" concrete base {[(5'(L) x 5'(W) x 12'(D)) - (2.33'(L) x 2.33'(W) x 11'(D))] / 27} = 9 CY.
Four (4) poles have no 406 HM Opportunity (HM was accomplished through PA MOR).

2.Feeder 8404-03 Scope: 12EA.poles.

Replace four (4) 45ft concrete H4 poles by four (4) 50ft galvanized steel S8 poles.
Replace two (2) 45ft concrete H6 poles by two (2) 50ft galvanized steel S8 poles.
Replace two (2) 50ft concrete H4 poles by two (2) 50ft galvanized steel S8 poles.
Replace four (4) 50ft concrete H6 poles by four (4) 50ft galvanized steel S8 poles.

3.Feeder 8404-04 Scope: 3EA. Poles.

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

4.Feeder 8501-02 Scope: 6EA. Poles.

Replace six (6) 45ft concrete H6 poles by six (6) 50ft galvanized steel S8 poles.

5.Feeder 8701-01 Scope:2EA poles.

No 406 Hazard Mitigation work identified at this time.

6.Feeder 8501-02 Scope: 11EA. Poles.

Replace seven (7) 45ft concrete H4 poles by seven (7) 50ft galvanized steel S8 poles.
Replace four (4) 45ft concrete H6 poles by four (4) 50ft galvanized steel S8 poles.

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$373,539.00
+ HM (Applicant A&E, Management & General Conditions) =	$98,988.00
Hazard Mitigation Total Cost =	$472,527.00

HMP Cost-Effectiveness Calculations:

Eligible Cost of PA repair Scope of Work per DI: $1,593,367.00

Net Cost of 406 HMP per DI: $373,539.00

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

HMR = ($373,539.00 / $1,593,367.00) x 100 = **23.44%**

The cost of this Hazard Mitigation Proposal (HMP) is **23.44%** of the repair or restoration costs and is deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April2018, Chapter 2, VII., Section C, ___ 15%Rule, **_X_ 100% Rule,** ___ BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost effective requirements.

* 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	($370,850.25)	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	$2,264,883.78	Uncompleted

CRC Gross Cost	$1,894,033.53
Total 406 HMP Cost	$472,527.00
Total Insurance Reductions	$0.00
CRC Net Cost	$2,366,560.53
Federal Share (90.00%)	$2,129,904.48
Non-Federal Share (10.00%)	$236,656.05

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-10909(12657)	$2,366,560.53	90 %	$2,129,904.48	10/14/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

8/18/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 673771

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: $2,366,560.53 (CRC Gross Amount $1,894,033.53 + Mitigation Amount $472,527.00)

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) #1231506:

FAASt [Pole and Conductor Repair - Arecibo Group 1] (Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02)

Location Description: Distribution Feeders Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02

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: $2,366,560.53 (CRC Gross Amount $1,894,033.53 + Mitigation Amount $472,527.00)

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 - Arecibo Group 1] (Dominguito 8010-01, Manatí 8404-03, Manatí 8404-04, Cruce Davila 8501-02, Ciales 8701-01 and Ciales 8701-02) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1
PART 2: Other Insurance-Related Provisions. (Sections 312 and 406(d) of the Stafford Act)

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

1. Before FEMA approves assistance for a property, an applicant must provide FEMA with information about any actual or anticipated insurance settlement or recovery it is entitled to for that property.

2. FEMA will reduce assistance to an applicant by the amount of its actual or anticipated insurance proceeds.

3. Applicants must take reasonable efforts to recover insurance proceeds that they are entitled to receive from their insurer(s).

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair - Arecibo Group 1] (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.
- Executive Order 11988 - Floodplains - Debris 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 work.
- 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 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) - The below conservation measures apply to the following species: Puerto Rican parrot and the Puerto Rican broad-winged hawk. 8. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (Amazona vittata): February to June 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 - 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 - Arecibo Group 1] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L. **Reviewed On** 09/12/2022 7:52 AM EDT

Review Comments

Project is Ready for Recipient Review

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/12/2022 10:03 AM EDT

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 $2,366,560.53 for subaward number 10909 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 Nieves, Ezequiel **Signed On** 09/14/2022

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	657300 **P/W #** 10957	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #936203; FAASt [Energy Management System]

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:** Energy Management System
- **Facility Description:** The EMS is the primary tool for monitoring and controlling the generation, transmission and distribution facilities that comprise the power grid. The EMS is one of the most urgent and crucial elements in maintaining power delivery and improving grid resilience. The EMS provides operators with the ability to identify and respond to potential reliability issues and outage conditions. It is also the primary vehicle for ensuring supply-demand balance in real time.
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** REDACTED

General Damage Information:

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

Final Scope

936203 **FAASt [Energy Management System]**

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work ("SOW") to COR3 and FEMA for the Energy Management System (EMS) Project - Phase 1 - Base Energy Management System Replacement, 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 the corresponding proposed 406 Hazard Mitigation work for the implementation of Advanced Energy Management System Grid Monitoring Applications. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facilities for the Energy Management System.

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 A 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 EMS is the primary tool for monitoring and controlling the generation, transmission and distribution facilities that comprise the power grid. The EMS is one of the most crucial elements in maintaining power delivery and improving grid resilience. The EMS provides operators with the ability to identify and respond to potential reliability issues and outage conditions. It is also the primary vehicle for ensuring supply-demand balance in real time. Hurricane Maria damaged and destroyed a number of transmission and sub-transmission substations. These substations are being modernized as part of their rebuild. This modernization will include the substation automation and protection equipment, including the apparatus and electronics that communicates with the EMS.

As a consequence of the reconstruction effort, the existing EMS will be unable to communicate with the rebuilt substations, resulting in significant operational risks. Therefore, a new, modern EMS is urgently needed since the existing system is not upgradable to integrate to the new RTU technology (as part of the RTU Replacement Program). Additionally, there is no cost effective modification or data conversion either available or developable.

Without new the EMS technology, visibility and control of the power grid system would be non-existent and could result in major outages. The RTU and EMS replacement is included in the 428 Funding “Damage Inventory 223318 and funding is being pursued as part of the PREPA Consolidated 428 Grant FEMA DR-4339-PR.

The Energy Management System Project will consist of the following phases:

Phase 1 - New modern Energy Management System (submitted for approval in this document Version 0)

Phase 2 - Temporary Data Centers to be leased (target submittal December 2022)

Phase 3 - New Primary Control Center (PCC)

Phase 4 - New Secondary Control Center (SCC)

The Energy Management System will be housed in the Proposed New PCC included in Phase 3 of this project and the Proposed New SCC included in Phase 4; to enable reliable power system operation. The coordinates shown below are for the centroids of the properties being targeted for use in the proposed projects. The target site for the PCC is the PREPA Monacillo campus, located within the greater San Juan Region. The target location for the SCC is being evaluated from the island-wide list of properties owned by PREPA and targeted opportunities for land/property acquisition.

The potential acquisition properties being considered for the SCC include sites that are directly adjacent to existing PREPA owned substations, outside the FEMA 100-year flood plain, and have direct access to redundant power and telecommunications services. Seventeen sites have been identified for consideration and further due diligence evaluation Including EHP analysis. Listed under the SCC in the chart below are the GPS coordinates for the substations that are directly adjacent to the sites under consideration.

The temporary data center space (Phase 2) to be leased will be at an existing fully functional, operating, Uptime Institute Tier III data center. In order to be considered as a viable location to house the Energy Management System, the existing facilities will have all the redundant systems (electrical, mechanical, telecommunications, plumbing, fire detection and fire protection) to provide reliability for 24 / 7 / 365 operation. The facilities under consideration will only require the installation of the Energy Management System computer equipment, and LUMA network equipment. Any facility identified that requires any construction or physical improvements will be eliminated from consideration.

Project Scope of Work

Base Energy Management System Replacement:

Proposed 428 Public Assistance Scope of Work:

A. Plan, design, and procure new modern Energy Management System that will provide the additional capabilities required to provide monitoring and control of the reconstructed substations, which consists of the following modules:

1. SCADA
2. Alarming and Event Processing
3. Automatic Generation Control
4. Network Analytics
5. Load Shedding
6. Load Forecast
7. Voltage Reduction
8. Transformer Group Control
9. Capacitor Reactor Banks Control
10. Recloser Group Control
11. Security Constrained Unit Commitment and Economic Dispatch
12. Reserve Programs
13. Transmission Outage Planning
14. Operator Training Simulator
15. User Interface
16. Editors for the Database and Displays
17. Sequence of Events
18. Operator Event logging
19. Video Wall display interface

B. Implement and commission Base Energy Management System Applications including the following:

1. Develop detailed system functional specifications by the selected vendor for review and approval by the LUMA Energy Management System team

2. Convert Database & Display, the existing Siemens Energy Management System data base and displays will be converted to the new Energy Management System platform. The LUMA team will support this process, review, edit and approve the product

3. Develop custom Database & Displays to support System Operations Manual Entry requirements. The LUMA team will be responsible for preparing any custom data bases and displays using the selected vendor's data base management and display creation tool sets

4. Develop Database and Displays for Applications implementation new to LUMA. Some Energy Management System functionality required, especially for renewables or for controlling legacy generation under new Purchase Power Operating Agreement (PPOA), are new to the system operations

5. Install Video Wall Design, the Energy Management System will control the graphics displayed on the control room video map board. The design of the graphics is done to work with the video map board controller and allow operator adjustment of what is displayed as needed operationally. The LUMA team will be responsible for supporting and approving the graphics development

6. Conduct Factory Testing, LUMA will review and approve vendor developed test procedures. LUMA will execute the test procedures at the factory, including functional testing, system performance testing, system unstructured operational testing, and variance correction revision testing

7. The LUMA team will support the staging and commissioning of the Energy Management System at both locations. The System Operations team will utilize the new Energy Management System to operate the grid for approximately 4-5 years while the new buildings are being designed, constructed, and commissioned

8. Install Field (by the vendor) in the planned temporary data center facilities, testing will be conducted to verify the functionality of the application software,

hardware infrastructure as well as the connectivity to the field devices. The LUMA team will support the vendor with the installation and commissioning of the Energy Management System

9. Conduct field testing after the Energy Management System equipment is installed and verified, including a complete end-to-end test of the installation. The LUMA team will support the field testing and commissioning of the Energy Management System

10. Develop final user documentation by the vendor which is aligned with the as-delivered system to support System Operations and IT/OT

11. Cutover the system upon approval from System Operations the new Energy Management System will go-live; the legacy Energy Management System will be shutdown

12. Program Manage and coordinate the Energy Management System activities with other LUMA projects such as substation automation, microgrid development, and telecommunications

C. Implement Advanced Energy Management System applications to meet the operational requirements of Puerto Rico Legislation and PR Energy Bureau (PREB) orders around goals for 100% renewable energy, high resilience, and other initiatives. The following modules will be integrated to reduce the loss of function and future damage prevention supporting extended monitoring and control of the grid under both normal and emergency conditions:

1. Energy Storage Management for facilitating supply-demand balancing at different time scales, managing renewable variability and intermittency, and other advanced system operations and stability concepts including synthetic inertia and governor response

2. Distributed Energy Resource Management Energy Management System (DERMS) to incorporate distributed resources in Integrated Grid Planning and Operation. Support management of the distributed resources to balance local demand and supply in steady and contingency conditions

3. MicroGrid Management and Control applications including regional and local resiliency in support of installed microgrids

4. MiniGrid Management and Control Application including regional and local resiliency in support of installed minigrids ? Extensions to Automatic Generation Control to support multiple control areas and systems

5. Synchrophasor applications in System Operations for situational awareness and managing system stability and performance with high penetrations of distributed generation

6. Renewable Forecasting will be used to support System Operations current day and next day power forecast. Will be used to support distributed generation and demand response in Integrated Grid Planning

7. Advanced Distribution Management System (ADMS) applications for improved reliability, resiliency, and enable faster outage response. Field equipment deployment will be planned and funded in other projects. The following modules and functions that will be integrated with the Energy Management System to support the deployment of the ADMS:

   a. Distribution Management System

   b. Distribution Network Analysis

   c. Grid Optimization tools

   d. Outage Management System

   e. Graphical Information Systems

   f. Enterprise Integrations

Project Estimate

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

Cost Estimate			

Planning	$570,000	$0	$570,000
Management	$1,471,312	$0	$1,471,312
Energy Management System	$46,808,848	$0	$46,808,848
General Conditions	$0	$0	$0
Contingency	$2,132,636	$0	$2,132,636
Total Project Cost Estimate	**$50,982,796**	**$0**	**$50,982,796**
		FAASt Project #657300 (428) Total	**$48,941,484**
		FAASt Project #657300 (406) Total	**$0**
		FAASt A&E #335168 Total	**$2,041,312**
		Total Cost	**$48,941,484**

Project Work To Be Completed (WTBC): Total Project Cost Estimate - A&E FAASt 335168

Project Work To Be Completed (WTBC): $50,982,796.00 - $2,041,312.00 = $48,941,484.00

Project Notes

1. For a full description of the Scope of Work contents for this project please refer to file: *657300-DR4339PR-00 Detailed SOW EMS-10128-EN-SOW-0002Rev2.pdf*.
2. *For a detailed Cost Estimate WTBC refer to document: 657300-DR4339PR-07 Appendix G - EMS LUMA LPCE Rev1.pdf*
3. Any claim or disbursement related to Engineering or Architecture (A&E) services for this project must be claimed/disbursed from Project 335168, which was prepared to cover A&E expenses related to this Applicant's FAASt Projects. The A/E funds for $2,041,312.00 have been calculated for this project (all DIs). However, the actual A&E costs will be claimed in GM project #335168. This amount will be included in this project with a negative dollar amount, to avoid duplicity of funds.
4. For EHP Requirements, refer to pages 10 to 13 of the detailed SOW and reference document: *657300-DR4339PR-00 Detailed SOW EMS-10128-EN-SOW-0002Rev2.pdf*.
5. The Infrastructure Division Director authorized modifying the Applicant provided scope of work to add specificity with regards to location, damage descriptions and quantities. The additional information was obtained from Applicant submitted documents available in GM project files."
6. Phase 1 The Energy Management System Implementation does not involve the construction of any facilities and / or any land disturbances.

406 HMP Scope

Project will be moved forward without Hazard Mitigation Proposal (HMP) for this Phase (Sub-Applicant Phase 1). An HMP will be submitted for Phase 4 as agreed with sub-applicant and FEMA.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (((3510 (Engineering And Design Services (Global A&E FAASt 335168)))) Version 0)))	1.00	Lump Sum	($2,041,312.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (9001 (((9001 (Contract (FAASt 136271)))) Version 0))	1.00	Lump Sum	$50,982,796.00	Uncompleted

CRC Gross Cost	$48,941,484.00
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$48,941,484.00
Federal Share (90.00%)	$44,047,335.60
Non-Federal Share (10.00%)	$4,894,148.40

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-10957(12661)	$48,941,484.00	90 %	$44,047,335.60	10/14/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

9/9/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 67300

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: $48,941,484.00

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) #936203:

FAASt [Energy Management System]

Location Description: Island Wide Telecommunication System

GPS Coordinates: REDACTED

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: $48,941,484.00

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 Energy Management System 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).

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)**.

406 Mitigation

There is no additional mitigation information on **FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)**.

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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [ENERGY MANAGEMENT SYSTEM (EMS)] (Telecommunication)**.

Final Reviews

Final Review

Reviewed By MARTINEZ SANTIAGO, ISRAEL **Reviewed On** 09/19/2022 2:23 PM EDT

Review Comments

FEMA FINAL REVIEW COMPLETED. Project ready for recipient review.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/19/2022 3:37 PM EDT

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 $48,941,484.00 for subaward number 10957 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 Nieves, Ezequiel **Signed On** 10/12/2022