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

MOTION SUBMITTING SEVEN FEMA APPROVALS OF PROJECTS, 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 submits the following:

I. Submittal of Seven FEMA Approvals and Request for Confidentiality

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

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

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

2. On April 14, 2021, PREPA filed a *Motion in Compliance with the Resolution and Order Entered on March 26, 2021*, which included a list of projects under the categories of transmission, distribution, and substations. PREPA submitted the list of projects to the Energy Bureau at least thirty (30) calendar days before their submittal to COR3 and/or FEMA, aligning with the March 26th Order.

3. Then, on April 22, 2021, the Energy Bureau issued a Resolution and Order ("April 22nd Order"). It determined that additional information was required to thoroughly evaluate the projects submitted by PREPA and evaluate its compliance with the March 26th Order. The Energy Bureau ordered PREPA to provide detailed information: (i) on or before April 28, 2021, for each project already submitted to COR3 and/or FEMA; and (ii) on or before May 21, 2021, for each project in that will be submitted to COR3 and/or FEMA under the different project categories. It also ordered PREPA to include a list of all the substations to be relocated to mitigate possible future flooding damage.

4. In compliance with the April 22nd Order, on April 28, 2021, PREPA filed a *Motion in Compliance with the Resolution and Order entered on April 22, 2021*. PREPA submitted the Scopes of Work ("SOW") provided to COR3 and FEMA in compliance with the April 22nd Order. The SOWs submitted by PREPA included the "FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)" project.

5. On June 8, 2021, the Energy Bureau entered a Resolution and Order in which it determined that the majority of the SOWs for T&D projects submitted by PREPA were necessary to improve the system's reliability ("June 8th Order"). Therefore, it approved the majority of the projects presented in the April 28th Submission. Further, the Energy Bureau ordered PREPA 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.

6. Thereafter, 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 Streetlighting - Carolina (Distribution)," "FAASt Streetlighting - Mayagüez (Distribution)," "FAASt Distribution Streetlighting - Bayamon (Distribution)," "FAASt Streetlight - Las Marías (Distribution)," "FAASt Distribution Streetlighting - Guaynabo (Distribution)," and the "FAASt Coamo Streetlight (Distribution)" T&D Projects.[3]

7. On September 22, 2021, the Energy Bureau issued a Resolution and Order that 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

[3] The "FAASt Distribution Streetlighting - Carolina (Distribution)," "FAASt Streetlighting - Mayagüez (Distribution)," "FAASt Distribution Streetlighting - Bayamon (Distribution)," "FAASt Streetlight - Las Marías (Distribution)," " FAASt Distribution Streetlighting - Guaynabo (Distribution),"and the "FAASt Coamo Streetlight (Distribution)" T&D Projects were submitted initially to the Energy Bureau as "Distribution Streetlighting," but were later divided into individual projects per municipality.

projects presented in the August 30th Motion. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the Project, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

8. In compliance with the June 8th and September 22nd Orders, LUMA hereby submits copies of seven (7) approvals by FEMA issued on November 3, 2023.[4] *See* **Exhibit 1** to this Motion. The document contains FEMA's approvals and includes the costs obligated for each Project.

9. LUMA is submitting herein a redacted public version of the FEMA approvals (**Exhibit 1**) protecting confidential information associated with Critical Energy Infrastructure Information ("CEII"). As explained in this Motion, portions of the FEMA approvals of the "FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)," "FAASt Distribution Streetlighting - Carolina (Distribution)," "FAASt Streetlighting - Mayagüez (Distribution)," "FAASt Distribution Streetlighting - Bayamon (Distribution)," "FAASt Streetlight - Las Marías (Distribution)," " FAASt Distribution Streetlighting - Guaynabo (Distribution),"and the "FAASt Coamo Streetlight (Distribution)" T&D Projects are protected from disclosure as CEII, *see, e.g.*, 6 U.S.C. §§ 671-674; 18 C.F.R. §388.113 (2020), and pursuant to the Energy Bureau's Policy on Management of Confidential Information. *See* Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, as amended by Resolution dated September 20, 2016.

II. Memorandum of Law in Support of Request for Confidentiality

[4] It is important to note that LUMA acquires knowledge of any FEMA approval for a T&D Project once FEMA makes the information available via its grant portal.

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

10. 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).

11. 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).

12. 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.

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

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

> 1. Trade Secret Information
> Any document designated by the [Energy Bureau] as Validated Confidential Information because it is a trade secret under Act 80-2011 may only be accessed by the Producing Party and the [Energy Bureau], unless otherwise set forth by the [Energy Bureau] or any competent court.
>
> 2. Critical Energy Infrastructure Information ("CEII")
> The information designated by the [Energy Bureau] as Validated Confidential Information on the grounds of being CEII may be accessed by the parties' authorized representatives only after they have executed and delivered the Nondisclosure Agreement.
>
> Those authorized representatives who have signed the Non-Disclosure Agreement may only review the documents validated as CEII at the [Energy Bureau] or the Producing Party's offices. During the review, the authorized representatives may not copy or

> disseminate the reviewed information and may bring no recording device to the viewing room.

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

15. 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

16. The FEMA approvals 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.[5] In at least two Data Security and Physical Security proceedings,[6] this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

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

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

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

18. Similarly, the Energy Bureau has granted LUMA's requests for confidential treatment of portions of SOWs submitted for approval in the present case. Notably, the Energy Bureau designated portions of SOWs as confidential CEII in its Resolution and Order of February 22, 2023, *see* Table 1 on page 3, Resolution and Order of April 5, 2023, *see* Table 1 on page 4, and Resolution and Order of May 5, 2023, *see* table 1 at page 3, and Resolution and Order of August 30, 2023, *see* table 1 at page 3. Likewise, the Energy Bureau has granted LUMA's request for confidential treatment of portions of FEMA Approvals of Projects submitted for consideration and authorization. Furthermore, this Energy Bureau designated portions of submitted FEMA Approvals of Projects as confidential CEII in its Resolution and Order of March 20, 2023; *see* Table 1 on pages 1-2.

19. 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.

20. CEII or critical infrastructure information is generally exempted from public disclosure because it involves assets and information that 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.

21. 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.*

22. 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]

[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;

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]

23. Portions of The FEMA approvals in **Exhibit 1** qualify as CEII because each of these documents contains the express coordinates to power transmission and distribution facilities (18 C.F.R. § 388.113(iv)), and these specific coordinates could potentially be helpful to a person planning an attack on the energy facilities listed as part of this FEMA approval. 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.

> (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;
> (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.

24. Based on the above, LUMA respectfully submits that portions of the FEMA approvals 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 the 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.

C. Identification of Confidential Information

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

Document	**Name**	**Pages in which Confidential Information is Found, if applicable**	**Summary of Legal Basis for Confidentiality Protection, if applicable**	**Date Filed**
Exhibit 1	FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)	Pages 1, 2, 5, and 14.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023
Exhibit 1	FAASt Distribution Streetlighting - Carolina (Distribution))	Pages 1, 3, 5, and 11.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt Streetlighting - Mayagüez (Distribution)	Pages 1, 3, 5, and 11.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023
Exhibit 1	FAASt [Distribution Streetlighting – Bayamon] (Distribution)	Pages 1, 5, 7, and 13.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023
Exhibit 1	FAASt Streetlight - Las Marías (Distribution)	Pages 1, 3, 5, and 10.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023
Exhibit 1	FAASt [Distribution Streetlighting – Guaynabo] (Distribution)	Pages 1, 3, 5, and 11.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	November 9, 2023
Exhibit 1	FAASt Coamo Streetlight (Distribution)	Pages 1, 3, 5, and10.	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113;	November 9, 2023

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
			6 U.S.C. §§ 671-674.	

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned; **accept** the copies of the seven (7) 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 PREPA's General Counsel, Lionel Santa, lionel.santa@prepa.pr.gov and to Genera PR LLC, through its counsel of record Jorge Fernández-Reboredo, jfr@sbgblaw.com and Alejandro López Rodríguez, alopez@sbglaw.com

In San Juan, Puerto Rico, on this 9th day of November 2023.

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Exhibit 1

Seven (7) FEMA Approvals

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	169266 **P/W #** 11489	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)	**Event**	4339DR-PR (4339DR)
		Declaration Date	9/20/2017
Project Size	Large	**Incident Start Date**	9/17/2017
Activity Completion Date	9/20/2027	**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 #433797; FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement

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:** Substation - Centro Medico 1327/1359 Equipment Repair & Replacement
- **Facility Description:** Centro Medico 38/4.16 kV Substations No. 1327 & 1359 include a control house, metalclad switchgear, transformers, structures, cables, surge arresters, and other related components in fenced yards.
- **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

433797 **FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement**

Introduction

The purpose of this document is to present and update a Project Scope of Work (SOW) with Cost Estimates to be submitted to COR3 and FEMA for the Substation - Centro Médico 1&2-1327/1359 project ("Centro Médico") 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 facility for the Centro Médico Substations.

LUMA submits this Detailed SOW pursuant to the T&D O&M Agreement between the 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 H which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA.

Facilities

The Centro Médico 38/4.16 kV Substations No. 1327 & 1359 includes a control house, metal clad switchgear, transformers, structures, cables, surge arresters, and other related components in a fenced yard.

The substation 1327 consists of two 3.072/3.840 MVA, 38/4.16 kV step-down transformers with fuse protection for the transformer's high voltage side and one 15 kV metal clad with five 1200 Amps circuit breakers with electromechanical, intelligent electronic device (IED) relays and a capacitor bank. Substation 1359 consists of one 12/22 MVA, 38/4.16 kV step down transformer and a 38 kV high side breaker (OCB 0050) with a fuse bypass and one 15 kV metal clad with eight 1200 Amps circuit breakers with electromechanical and intelligent electronic device (IED) relays.

Centro Médico Sectionalizer consists of four oil circuit breakers (OCB 8930, 8940,15530 & 0050) and one gas circuit breaker (GCB 16630). All breakers are rated at 1200 Amps, a 38 kV hot-dipped galvanized lattice sectionalizer structure with air circuit break (ACB), potential transformer, current transformer, lightning arrester, insulators, copper bus bars and hardware, a control house with protection relays, control relays, communication equipment, RTU, SCADA, and battery banks, Concrete driveway for substation equipment maintenance, all within a 24,300 sq. ft. yard enclosed by concrete and chain linked fence. Currently, the transformer and oil circuit breakers lack oil retention pits.

Physical Address	Centro Médico, near C. Dr. Luis A. Díaz Bomey, Río Piedras
Coordinates	[redacted]
Date of Construction	1963

Project Scope of Work

Substation:

FEMA 428 Public Assistance:

- Remove and replace one (1) 12/22 MVA, 38/4.16 kV and two (2) 3.072/3.840 MVA, 38/4.16 kV step down transformers and install two (2) new 11.2/14 MVA, 38/4.16 kV transformers side-by-side separated by firewalls, Including new foundations with new oil containment around the transformers.
- Remove and replace two existing 15kV metal clad switchgears with thirteen 1200 Amps circuit breakers.
- Remove and replace existing 38 kV Air Insulated Substation equipment including its hot-dipped galvanized steel lattice structures, 38 kV

OCB and GCB breakers, lighting arrestors, insulators, cooper bus bar, hardware, auxiliary systems, disconnects switches, and foundations.

- Remove and replace existing station service transformer and install a new Pad-Mounted 50 KVA 2400- 120/240V station service transformer.
- Remove and replace the existing concrete control building including the relays and control panels, Remote Terminal Units, battery bank, battery charger, AC/DC distribution panels and control panels/cables and associated conduits and wiring.
- Expand the substation by approximately 24,300 sq. ft to the northeast. Expansion will include topsoil and vegetation stripping, cut, leveling, and earthwork fill of the new substation pad. Expansion will be within the existing property boundary.
- Remove and replace the existing remote metering transformers with a new 38/4.16 kV/480-277V remote metering transformers, rated at 150 kVA. This transformer is essential for communications to/from the metering equipment at LUMA customer homes and businesses to gather data used for electrical service billing.
- Install new ground grid in the new expanded area of the substation and repair existing ground grid.
- Removal of the existing transformer foundation.
- Complete grading of substation pad and surrounding areas to improve site drainage with proper elevation.
- Install new closed-circuit television (CCTV) system, including eight cameras, allowing real-time site monitoring to evaluate critical substation integrity during and after a major event. This mitigation measure reduces public safety concerns, potential electric system downtime and improves resiliency. It also will prevent outages caused by possible physical security breaches.
- Remove existing fencing and foundations, concrete retaining wall base, and install new fencing for expanded substation boundary.
- Install a new retaining wall of 226 L-Ft between the existing and the new substation areas. The foundation work will include removal of selective trees and shrub, excavation for continuous footing, forming and reinforced steel Installation, and concrete placement.

Refer to Appendix E for proposed general arrangement.

Transmission Lines:

Proposed 428 Public Assistance Scope of Work

- Line 8900 from Monacillo TC – Install a new steel transmission pole (dead-end pole) with 38kV riser and switch in new location. Install an underground XLPE cable from the new pole location to the control enclosure.
- Line 15500 from Monacillo TC - Remove existing concrete transmission pole and install a new steel transmission pole (dead-end pole) with 38kV riser and switch in new location. Install an underground XLPE cable from the new pole location to the control enclosure.
- Install new steel transmission pole, with 38kV riser and switch, in new location for Mobile Tie.

Refer to Appendix E for proposed general arrangement

Distribution Lines:

Proposed 428 Public Assistance Scope of Work

- Remove and replace two wood poles by two new steel distribution poles (dead-end pole) with 15kV riser and switch in new location. This for feeders 1359-07 and 1359-08. Install an underground XLPE cable from the new pole location to the control enclosure.
- Install two new steel distribution poles (dead-end pole) with 15kV riser and switch in new location. This for feeders 1327-10 and 1327-11. Install an underground XLPE cable from the new pole location to the control enclosure.
- Install one new steel distribution pole for feeders 1327-10 and 1327-11.

Refer to Appendix E for proposed general arrangement.

IT/Telecom System & SCADA

Proposed 428 Public Assistance Scope of Work (As identified in LPCE):

- Install SCADA system and associated equipment inside the new Control Enclosure
- Remove and replace existing telecommunications tower.
- Install conduits and new underground fiber optic cables from handhole to the telecom equipment inside the new control building and to the telecom tower.

The scope of this project is only for the Centro Médico 1&2- 1327/1359 Substations project within the proposed site. All other scope, including physical security, substation minor repairs, SCADA and RTU replacements, microwave point-to-point network, transport network, field area network, high voltage equipment and control buildings may be provided as part of separate projects in the future.

Project Estimate

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

COST ESTIMATE	
Centro Medico - 14F002720000	**428**
PLANNING (FAASt 335168)	**$810,239**
MANAGEMENT (FAASt 335168)	**$1,000,679**
SUBSTATION	**$11,431,354**
GENERAL CONDITIONS	**$1,337,987**
CONTINGENCY	**$2,025,983**
TOTAL PROJECT COST ESTIMATE	**$16,606,242**
FAASt Project #169266 Total	**$14,795,324**
FAASt A&E #335168	**$1,810,918**

Work to be completed: $16,606,242

A&E Deduction (Global A&E FAASt #335168): -$1,810,918

Project Total Cost: $14,795,324

Project Notes:

1. Refer to detailed SOW provided in document “169266-DR4339PR-10098-CP-SOW-0003_REV 6 - signed.pdf”

2. Refer to detailed cost estimate provided in document “169266-DR4339PR-Centro Medico Substation LUMA LPCE FEMA 6-19-2023 (2).xlsx”

3. For reference documents Appendix A thru S, see files:

APPENDIX A- Preferred Vendor List

APPENDIX B- LUMA Waste Management Plan

APPENDIX C- Approved Geotechnical/Boring Plan

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

APPENDIX E- Preliminary Engineering Class III

APPENDIX F- LPCE Centro Médico 1327/1359 Estimate Breakdown

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

APPENDIX H- Environmental Plans

APPENDIX I- Existing Location and Photos

APPENDIX J- Environmental Mitigation Measures

APPENDIX K- 169266-DR4339 Appendix K - 2022-09-02- 75-25 Methodology Examples

APPENDIX L- 169266-DR4339 Appendix L - 2022-09-02 - SCADA Quote Package

APPENDIX M- 169266-DR4339 Appendix M - 2022-09-02 - Telecom Quote Package

APPENDIX N- 169266-DR4339 Appendix N - SCADA - Telecom additional narrative

APPENDIX O- 169266-DR4339 Appendix O - Additional Estimate Narrative 8.8.2022

APPENDIX P- 169266-DR4339 Appendix P - Rio Grande Estates Ch 2306 - SCADA and Telecom 406 2022-09-02

APPENDIX Q- 169266-DR4339 Appendix Q - COR3 – FEMA Telecom and SCADA HM July 18, 2022

APPENDIX R- 169266-DR4339 Appendix R - Additional SCADA- Comms details 2022-08-19

APPENDIX S- 169266-DR4339 Appendix S - Telecommunications - RFI response 8.8.2022

4. This project is part of a FAAST project, please reference project 136271.

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

406 HMP Scope

Project number: [169266] FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)

Damage # 433797; FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement

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

Location: San Juan, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricane-force winds, heavy rain, flooding, and power outage from Hurricane Maria. The incident caused damage to the electrical system, such as 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).

The Centro Médico 1327 & 1359 Substations were built approximately in 1963 and are located near C. Dr. Luis A. Diaz Bomey, Rio Piedras, Puerto Rico. The Centro Médico 38/4.16 kV Substations No. 1327 & 1359 includes a control house, metal clad switchgear, transformers, structures, cables, surge arresters, and other related components in a fenced yard.

The substation 1327 consists of two 3072/3840 MVA, 38/4.16 kV step-down transformers with fuse protection for the transformer's high voltage side and one 15 kV metal clad with five 1200 Amps circuit breakers with electromechanical, intelligent electronic device (IED) relays and a capacitor bank. Substation 1359 consists of one 12/22 MVA, 38/4.16 kV step down transformer and a 38 kV high side breaker (OCB 0050) with a fuse bypass and one 15 kV metal clad with eight 1200 Amps circuit breakers with electromechanical and intelligent electronic device (IED)relays.

Centro Médico Sectionalizes consists of four oil circuit breakers (OCB 8930, 8940,15530 St 0050) and one gas circuit breaker (GCB 16630). All breakers are rated at 1200 Amps, a 38 kV hot-dipped galvanized lattice sectionalize structure with air circuit break (ACB), potential transformer, current transformer, lightning arrester, insulators, copper bus bars and hardware, a control house with protection relays, control relays, communication equipment, RTU, SCADA, and battery banks, concrete driveway for substation equipment maintenance, all within a 24,300 sq. ft. yard enclosed by concrete and chain linked fence. Currently, the transformer and oil circuit breakers lack of oil retention pits.

Mitigation Approach:

The mitigation strategy for future similar damages to Centro Médico 1327 & 1359 Substations is accomplished by replacing the existing AIS system with a GIS system (gas insulated substation installed in an enclosed integrated control building), installing a redundant SCADA and Telecommunication Systems, hardening the perimeter fence, and the installation of a backup power generator to mitigate the potential damage of the substation batteries in a discharged state for extended period. Using the standard 428 method of repair (MOR) with additional mitigation funding directly addresses the substations extrapolated system-wide damages and impacts. These mitigation measures will reduce future similar damage such as hurricane high winds, heavy rain, wind blown debris, flooding, outages, as well as decrease the future likelihood of loss of function of the system. The improved project Scope of Work (SOW) incorporates the installation of a new control enclosure which contains one 15 kV and one 42.5 kV switchgears, telecommunication equipment, batteries, Substation Automation System using IEC 61850 technology, enhanced SCADA technology and all associated equipment.

In order to minimize the damages in a future event, the sub-applicant is proposing as a mitigation measure, the consolidation of all substation equipment into an enclosed integrated control building, the integration of a redundant SCADA and Telecommunication Systems, reduce the spacing of the chain-link fence posts from 10ft to 8ft, raise an additional 12" foundation wall above grade on the perimeter fence to prevent gravel contamination with dirt, reinforce one side of the perimeter fence retaining wall to prevent erosion, and a backup power generator to provide continuous power to the critical loads. The above mitigation measures will protect and make the affected elements more resistant 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 *(Supplement)*

1. **Substation Automation / Supervisory Control and Data Acquisition (SCADA) system:**

   The activities associated with the Hazard Mitigation initiative are intended to provide the means for a second (separate from the SCADA links) communication path that allows a faster and more reliable grid restoration after a major weather event to minimize loss of power service to the island population. The mitigation measure will harden the Power Grid protective systems consisting of the RTU's, protective relays, Distribution Automation System, CCTV system and EMS and thus directly reduce similar and future damages experienced at the sites and on the system due to loss of function and inability to clear faults resulting from flooding, high winds and wind-blown debris impacting Substation, Distribution and Transmission assets. Implementation of remote access connectivity to the Protective and Control (P&C) devices allows for the validation of existing relay settings and downloading emergency configurations and get access to failure records/events for real-time analysis. The remote access platform provides an integrated, comprehensive solution with a seamless configuration environment, ensuring relay connectivity and condition/configuration monitoring.

   IEC-61850 is implemented through a redundant TCP/IP network (PRP) with high data throughput (100 Megabits per second), providing services such as SCADA, Protection and Control (P&C), and remote access. This hardened and redundant TCP/IP network facilitates a high and fast volume of critical information/data to be transferred to the Control Center in seconds which is vital for making operational decisions during emergencies to preserve system control and prevent loss of function thus directly preventing similar and future damages to equipment, components, and systems.

   Under a traditional SCADA or RTU scheme, where the communication among the Intelligent Electronic Devices (IEDs) is implemented through serial links

or hardwired contacts, the amount of data is limited because of the bandwidth (19200 Kilobits per second) system limitations. Additionally, the IEC-61850 standard is Cybersecurity (CIP standards) compliance providing the proper electronic protection to the critical substation infrastructure.

This added functionality to the traditional SCADA system architecture will provide visibility to what is happening at the substation even when there is no ability to access the site during a major disaster. Immediate actions can be taken based on observed and/or anticipated conditions to control or configure power system assets to prevent loss of function and damages at the facility and system levels.

This system provides for three areas of functionality: SCADA, Protection and Control and Remote Access. As the systems are functionally interdependent and a complete change in technology from the traditional automation scheme, 25% of the substation automation/SCADA costs are considered 406 for substation rebuild projects.

1. **Telecommunication System:**

To mitigate the potential damage of losing the communication system for the substation equipment, the Applicant proposes the following mitigation measure for redundancy in communications at this facility.

The MOR utilizing 428 funds covers the direct repair and replacement of the damaged components and systems associated with telecom at this site. The 406-mitigation proposal is for redundant telecommunications components in parallel with the existing system to directly address and reduce the potential loss of function and critical services due to damages to the stand-alone telecommunications system. Damages and loss of function to the telecom system directly contributed to the lack of control and visibility to the facility, its equipment and function and thus also contributed to further damages to the power system due to lack of control and response to outages and faults on the system and with neighboring and functionally dependent substations.

Installing redundant telecom systems such as Microwave Communications and enhanced SCADA systems will directly reduce the loss of function, and subsequent damages and loss of function of other interconnected and damaged assets which will also result in a reduced need for emergency protective measures and temporary facilities following an event.

The communication towers will be designed to withstand higher wind speeds and provide greater resiliency to the threat from hurricanes and severe storms and a part of a holistic 406 hazard mitigation strategy.

The loss of communication could cause the substation to suspend service to the customers, water treatment plants, and sewer pumping station, etc., and the IEC 61850 for the Protection and Control System could also be interrupted.

The proposed activities associated with the Hazard Mitigation initiative for Telecommunications assets are intended to provide enhanced protective capabilities and resiliency of the new substation Local Area Network. This allows for a more reliable grid restoration after a major weather event to prevent similar and future damages and minimize loss of power service to the facility, power grid and island population. These mitigation measures will allow the Applicant to install enhanced Substation Automation and redundant communication paths to the substation via Fiber and Microwave links in a cyber-secure environment for added redundancy and overall system resiliency. These links will facilitate the implementation of remote access connectivity to the Protective and Control (P&C) devices which when added to the functionality of the traditional SCADA system architecture will provide greater visibility, command, and control into the substations in the event of future, similar disasters. The hardened infrastructure such as towers to facilitate the microwave link will add overall resiliency and redundancy to the overall network by withstanding impacts from flooding, high wind speeds and debris.

Backup power systems (UPS 48VDC battery bank), tele-protection equipment, networking firewalls and switches are considered at a 100% cost estimate as related to a holistic system 406 proposal based on the premise that these technologies currently do not exist and yet will directly mitigate future, similar damages and losses of function at the facility and system level for both damaged and repaired assets and components and well as non-damaged equipment and infrastructure systems subjected to the same damages and failures. The relation to damages and damage prevention is at the facility and system levels as a mitigation measure to protect other critical assets from damages.

The telecommunication tower cost split is based on the existing 50ft(H) concrete pole structure replacement cost compared to the cost of the new proposed 150ft(H) tower design.

1. **Chain-link Fence:**

On the damaged chain link fence [8ft(H) plus barbed wire, 6 ga. 2" mesh, sch-40 1-5/8" top rail, 2.5” line post and 3" end post installed in a concrete footing (LUMA/PREPA Standard for Fencing)], instead of 10ft spacing between post, provide and install **(17ea)** new 2.5” x 11ft(H) sch-40 line post with barbed wire extension arm to *reduce the spacing from 10ft to 8ft* to increase the resistance against wind-borne debris, and high hurricane winds impacts and/or effects, **187LF**.

Note: In order to comply with LUMA/PREPA codes and standards, each alternate pole is required to be grounded to the existing substation grounding grid.

- Exothermic weld, 4/0 wire to 1" ground rod = 9 EA.
- Pipe ground clamps, heavy duty, bronze, 1-1/4" to 2" diameter = 9 EA.

- Pipe ground clamps, heavy duty, bronze, 2-1/2" to 3" diameter = 17 EA.
- Crimp 2-way connectors, copper, or aluminum, 600 volt, #4 = 26 EA.
- Ground wire, copper wire, bare stranded, #4 = 26 LF.
- Ground wire, copper wire, bare stranded, 4/0 = 170 LF

The chain-link fence foundation wall will be raised an additional 12" [680ft(L) x 1ft(H) x 8in(W)] above grade for erosion control, strengthen the posts and fence foundation, and prevent the gravel from becoming contaminated with soil and/or dirt, **17CY**.

4. Retaining Wall:

For erosion control in one side of the chain link perimeter fence, the 428 MOR provide funds for the construction of a retaining wall. However, 406-mitigation will provide additional funds to reinforce the wall [226ft(L) x 3.5ft(H) x 8in(W)]. The retaining wall will be installed to improve the foundation of the fence to withstand similar future damage from debris impacts, wind speed, and heavy rain (erosion).

5. Backup Generator:

To avoid damage to the battery bank by the discharge drainage effect, the Applicant is proposing as a mitigation measure, the installation of a **(1ea)** new Standby Emergency Power Generator [50KW, 120/240V, aluminum enclosure, with an Automatic Transfer Switch (ATS)] that will provide continuous power to the circuits breakers that allow PREPA remotely operate the system in the event of a distribution line failure. This mitigation measures have the ability of recharge the batteries avoiding the battery discharge drainage effect and loss of function of the communication and control systems. **Note:** Prior to the purchase of the generator, the Applicant must consider that the substation is located less than a mile from the sea, so the exposed equipment and materials must be resilient to the environmental conditions.

Mitigation Measures *(Replacement)*

1. **Gas Insulated Substation (GIS) System:**

In order to minimize the damages in a future event, the Applicant is proposing as a mitigation measure, the consolidation of all substation equipment into an enclosed integrated control building that is a more resilient and cost-effective solution than rebuilding the existing switchyard. The above mitigation measures will protect and harden the facility making the affected elements more resistant to similar hazards.

This project is based on the extrapolated damages extended to the system as whole in the development of the 428 FAASt Grant and thus is viewed as eligible for the repairs and replacements as detailed in the MOR/SOW. The baseline repairs stipulated are in accordance with 'in kind" repairs, while the mitigation proposal is aligned holistically and prioritized based on a system needs analysis and benefits gained from hardening the components against future damages and losses of function as extrapolated system wide.

The scope of the project is to increase resiliency, by replacing the AIS system (air insulated substation installed in a metal-clad) with a GIS system (gas insulated substation installed in an enclosed integrated control building). Utilizing a standard 428 MOR with added mitigation measures directly address damages and impacts as extrapolated across the system and reduce future damages as well as decrease the future probability of loss of function. The proposed mitigation measures are distinct and separate from the damaged portions but are aligned with directly protecting against future damages to both damaged and undamaged portions of the facility and interconnected system. Benefits realized at this facility and impressed holistically upon the system are a reduction of future similar damage such as hurricane high winds, heavy rain, wind blown debris, flooding, outages, as well as decrease the future likelihood of loss of function of the system.

- Substation 38 kV Substation 15 kV GIS (Gas Insulated Switchgear): Supply 1ea 38KV GIS, 40kA, 3000A, with 18 sections [(10) 2000A CB's with Line VT's, (1) Tie 3000A CB, (1) Tie Aux] with long term internal maintenance according to the engineering design in compliance with applicable DCD, codes & standards, specifications and EHP. GIS to be factory tested and certified in presence of LUMA representatives.
- Substation 15 kV GIS (Gas Insulated Switchgear): Supply 1ea 15KV GIS, 31.5kA, 2000A, with 20 sections [(2) 2000A Main CB's, (1) Tie 2000A CB, (1) Tie Aux and (16) 1200A CB's] with long term internal maintenance according to the engineering design in compliance with applicable DCD, codes & standards, specifications and EHP. GIS to be factory tested and certified in presence of LUMA representatives.
- Prefabricated control enclosure, Stainless Steel, doors, stairs, relay panels AC and DC power, station batteries, charger, etc.
- Includes all the required works (material, equipment & labor) for full operation, start-up, and job site.

Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) = $ 4,426,031.00

+ HM (Applicant A&E, Management & General Conditions) =	$ 2,111,006.00
Hazard Mitigation Total Cost =	**$6,537,037.00**

HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $6,537,037.00 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (Global A&E FAASt 335168))	1.00	Lump Sum	($1,810,918.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (Contract (FAASt 169266))	1.00	Lump Sum	$16,606,242.00	Uncompleted

CRC Gross Cost	$14,795,324.00
Total 406 HMP Cost	$6,537,037.00
Total Insurance Reductions	$0.00
CRC Net Cost	$21,332,361.00
Federal Share (90.00%)	$19,199,124.90
Non-Federal Share (10.00%)	$2,133,236.10

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-11489(14376)	$21,332,361.00	90 %	$19,199,124.90	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

7/28/2023

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

Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo P.R.

7/18/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 169266

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

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

Total Public Assistance Amount: $21,332,361.00 (CRC Gross Cost $14,795,324.00 + Mitigation Amount $6,537,037.00)

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: Yes

The amount of the deductible being funded in this project is $0.00

The amount of the deductible previously funded in other projects is $25,000,000.00

Final Insurance Settlement Status: Insurance proceeds for this project are anticipated

The amount of Anticipated Insurance Reduction applied for Project: $0.00

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

Damaged Inventory (DI) #433797:

FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement

Location Description: Substation - Centro Medico 1327/1359 Equipment Repair & Replacement

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: "Sub-Stations"

SOV / Schedule Amount: $1,345,700,000.00

Applicable Deductible Amount: $25,000,000.00

Damage Inventory Amount: $21,332,361.00 (CRC Gross Cost $14,795,324.00 + Mitigation Amount $6,537,037.00)

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. 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 Substation - Centro Medico 1327/1359 Equipment Repair & Replacement - Building because insurable damages do not exceed $5,000.00. Please see "SP169266 – Cost Estimate – Insurance" file.

An Obtain & Maintain Requirement is being required for Equipment, for the peril of Wind (all wind associated losses including "wind driven rain" for the FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement in the amount of $18,789,403.27 (Equipment $12,297,192.78 + Insurable Mitigation Equipment $6,492,210.49). Please see "SP169266 – Cost Estimate – Insurance" file.

No Obtain & Maintain Requirement is being mandated for the FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement - Contents because insurable damages do not exceed $5,000.00. Please see "SP169266 – Cost Estimate – Insurance" file.

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).

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

FEMA Policy 206-086-1

H. Subsequent Assistance. When a facility that received assistance is damaged by the same hazard in a subsequent disaster:

1. If the applicant failed to maintain the required insurance from the previous disaster, then the facility is not eligible for assistance in any subsequent disaster.

2. Upon proof that the applicant maintained its required insurance, FEMA will reduce assistance in the subsequent disaster by the amount of insurance required in the previous disaster regardless of:

a. The amount of any deductible or self-insured retention the applicant assumed (i.e., "retained risk").

…

4. If the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster, FEMA will reduce assistance by that amount in accordance with Section VII, Part 2(A) of this policy.

Obtain and Maintain Requirements:

44 CFR § 206.253 Insurance requirements for facilities damaged by disasters other than flood.

(a) Prior to approval of a Federal grant for the restoration of a facility and its contents which were damaged by a disaster other than flood, the recipient shall notify the Regional Administrator of any entitlement to insurance settlement or recovery for such facility and its contents. The Regional Administrator shall reduce the eligible costs by the actual amount of insurance proceeds relating to the eligible costs.

(b)

(1) Assistance under section 406 of the Stafford Act will be approved only on the condition that the recipient obtain and maintain such types and amounts of insurance as are reasonable and necessary to protect against future loss to such property from the types of hazard which caused the major disaster. The extent of insurance to be required will be based on the eligible damage that was incurred to the damaged facility as a result of the major disaster. The Regional Administrator shall not require greater types and extent of insurance than are certified as reasonable by the State Insurance Commissioner.

(2) Due to the high cost of insurance, some applicants may request to insure the damaged facilities under a blanket insurance policy covering all their facilities, an insurance pool arrangement, or some combination of these options. Such an arrangement may be accepted for other than flood damages. However, if the same facility is damaged in a similar future disaster, eligible costs will be reduced by the amount of eligible damage sustained on the previous disaster.

(c) The Regional Administrator shall notify the recipient of the type and amount of insurance required. The recipient may request that the

State Insurance Commissioner review the type and extent of insurance required to protect against future loss to a disaster-damaged facility, the Regional Administrator shall not require greater types and extent of insurance than are certified as reasonable by the State Insurance Commissioner.

(d) The requirements of section 311 of the Stafford Act are waived when eligible costs for an insurable facility do not exceed $5,000. The Regional Administrator may establish a higher waiver amount based on hazard mitigation initiatives which reduce the risk of future damages by a disaster similar to the one which resulted in the major disaster declaration which is the basis for the application for disaster assistance.

(e) The recipient shall provide assurances that the required insurance coverage will be maintained for the anticipated life of the restorative work or the insured facility, whichever is the lesser.

(f) No assistance shall be provided under section 406 of the Stafford Act for any facility for which assistance was provided as a result of a previous major disaster unless all insurance required by FEMA as a condition of the previous assistance has been obtained and maintained.

Final Obtain and Maintain requirement amount will be determined during the closeout process after the final actual eligible costs to repair or replace the insurable facility have been determined.

FEMA Policy 206-086-1

F. Timeframes for Obtaining Insurance. FEMA will only approve assistance under the condition that an applicant obtains and maintains the required insurance.

The applicant must document its commitment to comply with the insurance requirement with proof of insurance.

If an applicant cannot insure a facility prior to grant approval (for example, if a building is being reconstructed), the applicant may provide a letter of commitment stating that they agree to the insurance requirement and will obtain the types and extent of insurance required, followed at a later date by proof of insurance once it is obtained. In these cases, the applicant should insure the property:

a. When the applicant resumes use of or legal responsibility for the property (for example, per terms of construction contract or at beneficial use of the property); or

b. When the scope of work is complete.

FEMA and the recipient will verify proof of insurance prior to grant closeout to ensure the applicant has complied with the insurance requirement.

An applicant should notify FEMA—in writing through the recipient—of changes to their insurance which impact their ability to satisfy the insurance requirement after it provides proof of insurance to FEMA. This includes changes related to self-insurance. If an applicant fails to do this, FEMA may de-obligate assistance and not provide assistance in a future disaster.

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

O&M Requirements

Insured Peril	Item Type	Description	Required Coverage Amount
Wind	Equipment	An Obtain & Maintain Requirement is being required for Equipment, for the peril of Wind (all wind associated losses including "wind driven rain" for the FAASt Substation - Centro Medico 1327/1359 Equipment Repair & Replacement in the amount of $18,789,403.27.	$18,789,403.27

406 Mitigation

There is no additional mitigation information on **FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)**.

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.
- Clean Air Act (CAA) - 1. The Applicant is responsible for providing a Source of Emission Permit (PFE) from the Puerto Rico Department of Natural and Environmental Resources (PR DNER), or any coordination (emails, letters, documented calls) pertaining to these activities and compliance must be documented and maintained in the Applicant's permanent files. Applicant shall identify, handle, transport, and dispose of hazardous materials and/or toxic waste in accordance with Puerto Rico Department of Natural and Environmental Resources (PRDNER) requirements including completing required notifications of the permit. 2. Applicant is required to obtain a Source of Emission Permit (PFE) from Puerto Rico Department of Natural and Environmental Resources (PR DNER) or General Permit for Emergency Power Generators (PG-GE) from the PR Office of Permits Management (OGPe) prior to construction and operation of the proposed source of emissions. Documentation of DNER and other state, local or federal guideline compliance, may be required as a condition of closeout.
- Endangered Species Act (ESA) - Puerto Rican Boa conditions: 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.
- National Historic Preservation Act (NHPA) - 1. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact

Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. 2. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. 3. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.

- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage, and dispose petroleum products, hazardous materials, and toxic waste in accordance with the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds. 3. 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.
- NEPA Determination - Fill Condition: 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 Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)**.

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 09/20/2023 12:31 PM PDT

Review Comments

LNA 09/20/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/25/2023 6:38 AM PDT

Review Comments

Recipient review completed. Project is ready for applicant project review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $21,332,361.00 for subaward number 11489 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 09/26/2023

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	678789 **P/W #** 11533	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Streetlighting - Carolina] (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 #437991; FAASt [Distribution Streetlighting - Carolina]

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:** Carolina Distribution Streetlights
- **Facility Description:** The Carolina municipality has a total of 18222 luminaires of which damage was estimated for 70% of these luminaires.Additional descriptions of typical components of a streetlight system are described below: • Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities • Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting • Luminaire/Light Bulb – The light emitting part of a streetlight • Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode • Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system • Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** [redacted]

General Damage Information:

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

Final Scope

437991 **FAASt [Distribution Streetlighting - Carolina]**

Introduction

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

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

Facilities

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

Physical Address	Carolina, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work-Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

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

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

Pole Replacement

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

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

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

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

- All work for this program will be performed within the current electrical right-of-way for each of the municipalities.
- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].
- This scope of work will not affect water or sewer utility services.

Material Disposal

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

Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Sabana Llana Warehouse, [redacted]. Refer to Appendix M for Warehouse location.

Fill, gravel, sand, etc.

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

List of Equipment to be used

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

Specific List of Permits Required

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

Project Estimate

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

Project Cost Estimate	428 Estimate
Planning, Permits and Applications **(FAASt 335168)**	$117,204.70
Environmental Management **(FAASt 335168)**	$652,745.77
Project Management **(FAASt 335168)**	$635,446.89
Engineering **(FAASt 335168)**	$1,154,095.49
Construction	$13,725,652.82

Contingency	$1,139,960.20
TOTAL PROJECT COST ESTIMATE	**$17,425,105.87**
428 FAASt Project 678789	**$14,865,613.02**
FAASt Project A&E 335168	**$2,559,492.85**

Work To Be Completed (WTBC): $17,425,105.87

A&E Deduction (Global A&E FAASt 335168): -$2,559,492.85

Project Total Cost: $14,865,613.02

Project Notes and Attachments

1. For detailed cost estimate, please refers to document labeled: 678789-DR4339PR-Detailed SOW Carolina Phase 1 High Priority Rev2 - DSOW - signed.pdf
2. Refer to detailed SOW provided in document 678789-DR4339PR-Detailed SOW Carolina Phase 1 High Priority Rev2 - DSOW - signed.pdf
3. For reference documents Appendix A thru L, see file labeled:

- **Appendix A** – Approved Supplier List
- **Appendix B –** Work Zones Map
- **Appendix C –** Intentionally Left in Blank
- **Appendix D –** LUMA Wildlife Avian and Historical Protection Procedure #335
- **Appendix E –** Consent to Federal Funding Letter- FEMA/COR3
- **Appendix F –** FID Coordinates
- **Appendix G –** Cost Estimate
- **Appendix H –** Intentionally Left in Blank
- **Appendix I –** LUMA Streetlighting Construction Standards
- **Appendix J –** LUMA Distribution Design Manual
- **Appendix K –** EHP Checklist
- **Appendix L –** EHP Maps Carolina
- **Appendix M –** Warehouse Locations

4. For EHP Requirements, refer to pages 6 to 7 of the detailed SOW and reference documents: Appendix K & L.
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).
6. All streetlight trench rebuilds will be performed in the same location and with the same dimensions as the existing damaged one.
7. No new trenches are considered under the project.

8. The trenches are described by LUMA Trench Standard STL-16 (attached in the project), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and following a straight line between the streetlight poles.

9. Staging area name location was modified as described in the labeled document "678789-DR4339PR- RFI Response EHP.pdf"

406 HMP Scope

Project number: 678789; FAASt [Distribution Streetlighting Carolina] (Distribution)

Damage # 437991; FAASt [Distribution Streetlighting - Carolina]

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

Location: Carolina, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Carolina Municipality, PREPA has a total of 4,628 ea. streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

406 Mitigation Scope of Work:

- Replace (838 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (205 ea.) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (1,216 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (61 ea.) 12ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (33 ea.) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (56 ea.) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.

- Replace (245 ea.) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (50 ea.) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (266 ea.) 33ft octagonal concrete poles by (266 ea.) 39ft octagonal concrete poles.
- Replace (167 ea.) 35ft galvanized poles by (167 ea.) 35ft S3.5 galvanized poles.
- Replace (167 ea.) 30ft aluminum poles by (167 ea.) 40ft aluminum poles.
- Replace (124 ea.) 30ft aluminum poles breakaway bases by (124 ea.) 40ft aluminum poles breakaway bases.
- Replace (167 ea.) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (167 ea.) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) = $ 845,273.47

+ HM (Applicant A&E, Management & General Conditions) = $ 313,673.09

Hazard Mitigation Total Cost = **$1,158,946.56**

-

HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $1,158,946.56 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (v0 Engineering and Design Services - PREPA FAASt A&E 335168)	1.00	Lump Sum	($2,559,492.85)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (v0 Contract - PREPA FAASt Project 136271)	1.00	Lump Sum	$17,425,105.87	Uncompleted

CRC Gross Cost	$14,865,613.02
Total 406 HMP Cost	$1,158,946.56
Total Insurance Reductions	$0.00
CRC Net Cost	$16,024,559.58
Federal Share (90.00%)	$14,422,103.63
Non-Federal Share (10.00%)	$1,602,455.95

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11533(14379)	$16,024,559.58	90 %	$14,422,103.62	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

9/8/2023

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

Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo P.R.

8/25/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 678789

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: $16,024,559.58 (CRC Gross Cost $14,865,613.02 + Mitigation Amount $1,158,946.56)

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) #437991:

FAASt [Distribution Streetlighting - Carolina]

Location: Carolina Distribution Streetlights

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: $16,024,559.58 (CRC Gross Cost $14,865,613.02 + Mitigation Amount $1,158,946.56)

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 FAASt [Distribution Streetlighting - Carolina] 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).

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

O&M Requirements

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

406 Mitigation

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

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - For Damage #437991, multiple pole sites: Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - Conditions for: Epicrates inornatus (Damage #437991) 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.
- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material. 2. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.

EHP Additional Info

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

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 09/20/2023 12:01 PM PDT

Review Comments

LNA 09/20/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the ward process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/25/2023 6:43 AM PDT

Review Comments

Recipient review completed. Project is ready for applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $16,024,559.58 for subaward number 11533 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 09/26/2023

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	678793 **P/W #** 11532	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Streetlighting - Mayagüez] (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 #1237881; FAASt [Streetlighting - Mayagüez]

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

General Facility Information:

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

General Damage Information:

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

Final Scope

1237881 **FAASt [Streetlighting - Mayagüez]**

Introduction

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

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

Facilities

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

Physical Address	Mayaguez, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

Pole Replacement

- Remove existing streetlight poles, including lighting components and install new streetlight poles,

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

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

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

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

- All work for this program will be performed within the current electrical right-of-way for each of the municipalities.
- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].
- This scope of work will not affect water or sewer utility services.

Material Disposal

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

Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Mayaguez Warehouse, [redacted]. Refer to Appendix M for Warehouse location.

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Specific List of Permits Required:

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

Project Estimate

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

Project Cost Estimate	428 Estimate
Planning, Permits and Applications (FAASt 335168)	$113,472.62
Environmental Management (FAASt 335168)	$806,254.75
Project Management (FAASt 335168)	$469,832.53
Engineering (FAASt 335168)	$902,020.70
Construction	$10,148,382.67
Contingency	$870,797.43
TOTAL PROJECT COST ESTIMATE	**$13,310,760.70**
428 FAASt Project 678793	**$11,019,180.10**
FAASt Project A&E 335168	**$2,291,580.60**

Work To Be Completed (WTBC): $13,310,760.70

A&E Deduction (Global A&E FAASt 335168) -$2,291,580.60

Project Total Cost: $11,019,180.10

Project Notes and Attachments

1. For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Mayagüez Municipality - Completed Rev1.xlsx
2. Refer to detailed SOW provided in document 678793-DR4339PR-Detailed SOW Mayaguez Phase 1 High Priority Rev0 - DSOW - signed.pdf
3. For reference documents Appendix A thru L, see file labeled:

Appendix A – Approved Supplier List

Appendix B – Work Zones Map

Appendix C – Intentionally Left in Blank

Appendix D – LUMA Wildlife Avian and Historical Protection Procedure #335

Appendix E – Consent to Federal Funding Letter- FEMA/COR3

Appendix F – FID Coordinates

Appendix G – Cost Estimate

Appendix H – Intentionally Left in Blank

Appendix I – LUMA Streetlighting Construction Standards

Appendix J – LUMA Distribution Design Manual

Appendix K – EHP Checklist

Appendix L – EHP Maps Mayaguez

Appendix M – Warehouse Locations

4. For EHP Requirements, refer to pages 6 to 7 of the detailed SOW and reference documents: Appendix J & K.

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).

6. All streetlight trench rebuilds will be performed in the same location and with the same dimensions as the existing damaged one.

7. No new trenches are considered under the project.

8. The trenches are described by LUMA Trench Standard STL-16 (attached in the project), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and following a straight line between the streetlight poles.

406 HMP Scope

Project number: 678793; FAASt [Distribution Streetlight - Mayagüez] (Distribution)

Damage # 1237881; FAASt Distribution Streetlight Mayagüez P1

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

Location: Mayaguez, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Mayaguez Municipality, PREPA has a total of 3,166 ea streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

406 Mitigation Scope of Work:

- Replace (1,282ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (187ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (645ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (22ea) 12ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (4ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (8ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (51ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (108ea) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (168ea) 33ft octagonal concrete poles by (168ea) 39ft octagonal concrete poles.
- Replace (505ea) 35ft galvanized poles by (505ea) 35ft S3.5 galvanized poles.
- Replace (99ea) 30ft aluminum poles by (99ea) 40ft aluminum poles.
- Replace (83ea) 30ft aluminum poles breakaway bases by (83ea) 40ft aluminum poles breakaway bases.
- Replace (99ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (99ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	$ 954,580.45
+ HM (Applicant A&E, Management & General Conditions) =	$ 397,623.91
Hazard Mitigation Total Cost =	**$1,352,204.36**

HMP Cost-Effectiveness Calculations

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $1,352,204.36 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (v0 Engineering and Design Services - PREPA FAASt A&E 335168)	1.00	Lump Sum	($2,291,580.60)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (v0 Contract - PREPA FAASt Project 136271)	1.00	Lump Sum	$13,310,760.70	Uncompleted

CRC Gross Cost	$11,019,180.10
Total 406 HMP Cost	$1,352,204.36
Total Insurance Reductions	$0.00
CRC Net Cost	$12,371,384.46
Federal Share (90.00%)	$11,134,246.02
Non-Federal Share (10.00%)	$1,237,138.44

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-11532(14380)	$12,371,384.46	90 %	$11,134,246.01	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

8/24/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 678793

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: $12,371,384.46 (CRC Gross Cost $11,019,180.10 + $1,352,204.36 Mitigation Cost)

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) #1237881:

FAASt [Streetlighting - Mayagüez]

Location Description: Streetlighting - Mayagüez

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not Covered

SOV / Schedule Amount: N/A

Applicable Deductible Amount: N/A

Damage Inventory Amount: $12,371,384.46 (CRC Gross Cost $11,019,180.10 + $1,352,204.36 Mitigation Cost)

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, Applicant's commercial policy does not extend coverage for the damages described in this project.

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for Streetlighting – Mayagüez because facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

Olga Renta, PA Insurance Specialist

CRC Atlantic, Guaynabo, PR

O&M Requirements

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

406 Mitigation

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

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Damage# 1237881. USFWS Required Conservation Measures for (Caretta caretta), (Chelonia mydas), (Dermochelys coriacea) and (Eretmochelys imbricata). There is potential for sea turtle nesting activity on all ocean-facing sand beaches in Puerto Rico and the US Virgin Islands, including mixed sand and gravel (shell, coral rubble) beaches. The following measures are applicable to green, loggerhead, leatherback, and hawksbill sea turtles. See ESA maps for more details. 10. During nesting season (March 1-November 30) a qualified sea turtle monitor shall survey each beach work area for possible sea turtle nests during the morning. Any nests found within the area will be marked or flagged in place. Outside of peak nesting season, beaches where work will occur shall be surveyed at least twice a week. If required, debris removal Construction activities on beaches shall initiate only after the sea turtle monitor has completed surveys that morning and nests are clearly marked. Surveys shall be conducted by sea turtle permit holders or trained personnel following DNER/DPNR protocols (see list of PR sea turtle groups, for USVI contact DPNR). Nests laid adjacent to the work area shall be marked by flagging with a 10-foot square roped off buffer and an unobstructed path seaward from the nest to the water. Surveys will start 45 minutes prior to any construction activity. Sea turtle monitoring groups shall have site specific information for nests in their areas and inform work crews of areas to avoid. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 11. During the sea turtle nesting season, repair or replacement of structures shall occur in the same location or

footprint of the previously permitted structure. If the current project footprint does not stay within previously permitted structure footprint, then the applicant must consult with USFWS. 12. Relocation of sea turtle nests to accommodate construction is not authorized. 13. All project activity shall be confined to daylight hours and shall not occur prior to 0800 AST or following the completion of all necessary marine turtle surveys and conservation activities. The sea turtle monitor shall be available via phone after the initial inspection for any coordination throughout the workday. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 14. Only native plant species are authorized to be planted. Existing native dune vegetation shall be disturbed to the minimum extent necessary. For information on appropriate coastal plants see Fish and Wildlife Service BMP document, Sea Turtle Friendly Vegetation. Removal of standing and live coastal vegetation (e.g. sea grapes, mangroves) that are not a hazard is unauthorized. No sea grass, sea weeds, algae nor beach sand shall be removed during beach debris removal efforts. Any vegetation planting shall be installed by hand labor and tools. Irrigation systems shall not be installed within nesting habitat. Applicant will submit a vegetation plan that confirms compliance with these requirements and submit to USFWS at: caribbean_es@fws.gov. If a sea turtle nest is disturbed or uncovered during vegetation planting activity or project excavation, all work shall cease, and the sea turtle monitor shall immediately be contacted. If a nest(s) cannot be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 15. Placement of fill shall not occur within 10 feet of or in any area seaward of a marked sea turtle nest. Nests shall be marked in place with a roped off 10-foot buffer. Dependent upon the fill volume and slope, distance offset from marked turtle nests may be required to be larger to avoid indirect impacts (e.g., fill slumping) to the nest. If the turtle nest cannot be avoided by this distance due to the scope of the project, all work near the nest must be postponed until completion of the sea turtle nesting season (November 30). This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 16. All excavations and temporary alteration of beach topography shall be contoured or leveled to the natural beach profile prior to dusk each day. This includes raking of tire ruts, filling pits or holes where debris was removed, etc. Any potential obstructions such as debris piles, equipment, etc. shall also be removed from the beach by the end of each day. Fill must be placed as landward as practicable to establish or repair dune features. The existing or pre- disaster beach and dune profile must be considered when determining the appropriate siting of fill to provide reasonable longevity of the project. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 17. No vehicles, equipment, staging or debris should be used, parked or stored landward of the primary dune or in vegetated areas. Staging/parking/storage areas shall be located on paved surfaces as much as possible and outside of vegetated areas. Lightweight, all terrain style vehicles, with tire pressures of 10 psi or less can operate on the beach and are the preferred transportation method. However, use of heavy equipment on the beach can be allowed provided it is taken off the beach by 1600 AST local time every night using an approved and designated beach access. All driving on the beach shall be between the high-water mark and the water's edge. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 18. Removal of vegetation, fence installation, construction activities, and light installation shall be limited within 50 meters from the high tide line. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 19. No construction involving lights shall be used during the nesting season. For Puerto Rico and the USVI, a lighting plan utilizing sea turtle friendly lights for coastal areas is required where lights will be repaired or newly installed. Lighting plans shall be sent to USFWS at: caribbean_es@fws.gov. Once the plan is fully implemented, a lighting inspection shall be conducted by the Applicant to identify and correct any remaining problematic lights. For projects in Puerto Rico the project shall comply with Puerto Rico Law 218 of 2008, Control and Prevention of the Lighting Pollution of Puerto Rico and the PR EQB 2016 Regulation to Control and Prevent Light Contamination. 20. If an unmarked sea turtle crawl is encountered during or prior to project activity, the work crew shall not disturb the integrity of the crawl. Project personnel shall follow the crawl up the beach or into the dune and contact the qualified sea turtle monitor to inform of the location of the crawl. Care shall be taken to avoid walking or driving equipment over or near a crawl so that a potential nest is not damaged. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 21. Any collision(s) with and/or injury to any sea turtle in water, occurring during the construction of a project, shall be reported immediately to DNER/DPNR and NMFS's Protected Resources Division (PRD) at (1-727-824-5312) or by email to takereport.nmfsser@noaa.gov and SAJ-RD-Enforcement@usace.army.mil. This measure will be conducted in accordance with FEMA/USFWS/DNER-approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring. 22. All sea turtle sightings and incidents involving nesting sea turtles or hatchlings shall be reported to DNER/DPNR and the USFWS: Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, PR, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 2016, 787- 510-5207, marelisa_rivera@fws.gov. This measure will be conducted in accordance with FEMA/USFWS/DNER approved SOP for employee sea turtle awareness training, project site preparation, and nest season monitoring.

- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa apply for damage#1237881. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be

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

- National Historic Preservation Act (NHPA) - 1. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. 2. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. 3. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA)- 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning to 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 [Streetlighting - Mayagüez] (Distribution)**.

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 09/13/2023 11:59 AM PDT

Review Comments

LNA 09/13/2023. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/18/2023 8:23 PM PDT

Review Comments

Recipient review completed. Project is ready for applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $12,371,384.46 for subaward number 11532 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 09/19/2023

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	679780 **P/W #** 11540	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Streetlighting - Bayamon] (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 #921843; FAASt [Distribution Streetlighting - Bayamon]

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

General Facility Information:

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

921843 FAASt [Distribution Streetlighting - Bayamon]

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Distribution Streetlighting Bayamón Phase 1 High Priority project (Bayamón municipality) under DR-4339-

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

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

Facilities

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

Physical Address	Bayamón, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

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

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

Pole Replacement:

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

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

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

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

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

- **Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].**

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

Trenching/Underground (Replacing Underground Circuit):

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

- **Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].**

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

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Material Disposal:

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

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

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

Staging Area:

- **All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Bayamón Warehouse, [redacted]. Refer to Appendix M for Warehouse location.**

Specific List of Permits Required:

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

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

1 The poles that will require replacement of the existing foundation can be found in Appendix G in the tab "Global Initial

Scope of Work," column AW (Concrete Pole Base (40ft)), filter by values equal to 1. This represents the same information as Appendix K, column O (Concrete Foundation), filter by values equal to YES. Further, the dimensions for the foundations are 10 feet deep by 3 feet in diameter. The depth of the foundation can be found in Appendix K, column D (Soil area and depth impact).

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

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

Project Estimate

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

Planning Permits & Applications (FAASt 335168)	$ 119,142
Environmental Management (FAASt 335168)	$ 567,457
Project Management (FAASt 335168)	$ 888,363
Engineering (FAASt 335168)	$ 1,639,997
Construction	$ 19,145,439
Contingency	$ 1,565,088
Total	**$ 23,923,485**

Work To Be Completed (WTBC): **$23,923,485**

A&E Deduction (Global A&E FAASt 335168): **-$3,212,958**

Project Total Cost: **$20,710,527**

Project Notes:

1. This project is part of a FAAST project, please reference project 136271.
2. For a detailed SOW, please refer to document labeled: 679780-DR4339PR-Detailed SOW Bayamón Phase 1 High Priority Rev1 - DSOW - signed.pdf.
3. For a detailed cost estimate, refer to document labeled: Appendix G - Cost Estimate Bayamón P1 Municipality.xlsx.
4. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.
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).
6. For reference documents Appendix A thru M, see file labeled:

Appendix A – Preferred Vendor List Directory PR

Appendix B – Bayamón Work Zones Map

Appendix C – LUMA Waste Management Plan

Appendix D – Wildlife Avian and Historical Resources Protection Procedure #335

Appendix E – Consent to Federal Funding Letter- FEMA/COR3

Appendix F – Work Zones FIDs SIDs and Coordinates

Appendix G – Cost Estimate Bayamón P1 Municipality

Appendix I – LUMA Streetlighting Construction Standards

Appendix J – LUMA Distribution Design Manual

Appendix K – EHP Checklist Bayamón P1

Appendix L – EHP Maps Bayamón P1

Appendix M – Warehouse Locations

406 HMP Scope

Project number: 679780; FAASt [Distribution Streetlighting - Bayamon] (Distribution)

Damage #921843; FAASt [Distribution Streetlighting - Bayamon]

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

Location: Bayamon Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Bayamon Municipality, PREPA has a total of 6,504 streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

406 Mitigation Scope of Work:

- Replace (736ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (217ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (3,306ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (81ea) 12ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (7ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (57ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (122ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (1ea) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) pole.
- Replace (447ea) 33ft octagonal concrete poles by (447ea) 39ft octagonal concrete poles.
- Replace (288ea) 35ft galvanized poles by (288ea) 35ft S3.5 galvanized poles.
- Replace (82ea) 30ft aluminum poles by (82ea) 40ft aluminum poles.
- Replace (58ea) 30ft aluminum poles breakaway bases by (58ea) 40ft aluminum poles breakaway bases.
- Replace (82ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (82ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$ 871,692.00
+ HM (Applicant A&E, Management & General Conditions) =	$ 304,684.00
Hazard Mitigation Total Cost =	**$ 1,176,376.00**

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HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $1,176,376.00 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (Global A&E FAASt Project 335168))	1.00	Lump Sum	($3,212,958.00)	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	$23,923,485.00	Uncompleted

CRC Gross Cost	$20,710,527.00
Total 406 HMP Cost	$1,176,376.00
Total Insurance Reductions	$0.00
CRC Net Cost	$21,886,903.00
Federal Share (90.00%)	$19,698,212.70
Non-Federal Share (10.00%)	$2,188,690.30

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-11540(14382)	$21,886,903.00	90 %	$19,698,212.70	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

9/7/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP-679780

Category of Work: Cat F - Utilities

Applicant: PR Electric Power Authority

Event Type: Hurricane / Hurricane Maria

Cause of Loss: Wind / Wind Driven Rain

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

Total Public Assistance Amount: $21,886,903.00 (CRC Gross Cost $20,710,527.00 + $1,176,376.00 Mitigation Cost)

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) #921843:

FAASt [Distribution Streetlighting - Bayamon]

Location Description: Distribution Streetlighting - Bayamon

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not Covered

SOV / Schedule Amount: N/A

Applicable Deductible Amount: N/A

Damage Inventory Amount: $21,886,903.00 (CRC Gross Cost $20,710,527.00 + $1,176,376.00 Mitigation Cost)

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, Applicant's commercial policy does not extend coverage for the damages described in this project.

Obtain and Maintain Requirement:

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

Insurance Proceeds Statement:

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

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

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

Olga Renta, PA Insurance Specialist

CRC Atlantic, Guaynabo, PR

O&M Requirements

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

406 Mitigation

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

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - For Damage #921843, multiple pole sites: Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for: Epicrates inornatus (Damage #921843) 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are, found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be

disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa-sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851- 7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.

- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material. 2. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.

EHP Additional Info

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

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 10/11/2023 10:50 AM PDT

Review Comments

LNA 10/11/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 10/13/2023 5:22 AM PDT

Review Comments

Recipient review completed. Applicant must ensure to comply with all regulatory compliance and PA policy. Project is ready for applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $21,886,903.00 for subaward number 11540 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 10/16/2023

v0

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	698439 **P/W #** 11526	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt Streetlight - Las Marías (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 #1277752; FAASt Distribution Streetlighting - Las Maria (Distribution)

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

General Facility Information:

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

1277752 FAASt Distribution Streetlighting - Las Maria (Distribution)

Introduction

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

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

Facilities

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

Physical Address	Las Marías, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work

Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

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

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

Pole Replacement

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

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

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

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

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

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

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

Trenching/Underground (Replacing Underground Circuit)

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

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

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

Material Disposal

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

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

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

Staging Area

• All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Mayaguez Warehouse, [redacted]. Refer to Appendix M for Warehouse location.

Specific List of Permits Required:

• DTOP Endorsements & Municipality Notifications.

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

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

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Project Estimate

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

Project Cost Estimate	**428 Estima**
Planning, Permits and Applications	$108,9
Environmental Management	$606,6
Project Management	$301,0

Engineering	$636,7
Construction	$6,502,3
Contingency	$570,9
SUBTOTAL	**$8,726,6**
428 FAASt Project 698439	**$7,073,2**
FAASt Project A&E 335168	**$1,653,3**

Please refer to Appendix G for Cost Estimate Details.

428 Work To Be Completed (WTBC): $8,726,607

428 A&E Deduction (Global A&E FAASt 335168) -$1,653,390

428 Project Total Cost: $7,073,217

For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Las Marías Municipality - Completed Rev1.xlsx

Project Notes:

1. Refer to detailed SOW provided in document 698439-DR4339PR-Detailed SOW Las Marías Rev1 - DSOW - signed.pdf
2. For reference documents Appendix A thru M, see file labeled

Appendix A – Approved Supplier List

Appendix B – Work Zones Map

Appendix C – Intentionally Left In Blank

Appendix D – LUMA Wildlife Avian and Historical Protection Procedure #335

Appendix E – Consent to Federal Funding Letter- FEMA/COR3

Appendix F – FID Coordinates

Appendix G – Cost Estimate

Appendix H – Intentionally Left In Blank

Appendix I – LUMA Streetlighting Construction Standards

Appendix J – LUMA Distribution Design Manual

Appendix K – EHP Checklist

Appendix L – EHP Maps Las Marías

Appendix M – Warehouse Locations

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

5. This project is part of a FAAST project, please reference project 136271

6. All streetlight trench rebuilds will be performed in the same location and with the same dimensions as the existing damaged one.

7. No new trenches are considered under the project.

8. The trenches are described by LUMA Trench Standard STL-16 (attached in the project), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and following a straight line between the streetlight poles.

Project number: 698439; FAASt [Distribution Streetlighting – Las Marias] (Distribution)

Damage #1277752; FAASt Distribution Streetlight Las Marias

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

Location: Las Marias, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Las Marias Municipality, PREPA has a total of 1,695 streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

406 Mitigation Scope of Work:

- Replace (1428ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (81ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.

- Replace (14ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (1ea) 12ft galv. steel arm (90mph by 160mph winds resistant) for (octagonal Concrete) poles.
- Replace (1ea) 33ft octagonal concrete pole by (1ea) 39ft octagonal concrete pole.
- Replace (792ea) 35ft galvanized poles by (792ea) 35ft S3.5 galvanized poles. Replace (152ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.

-

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$ 888,414.00
+ HM (Applicant A&E, Management & General Conditions) =	$ 399,291.00
Hazard Mitigation Total Cost =	**$ 1,287,705.00**

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HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $1,287,705.00 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services (Global A&E 335168))	1.00	Lump Sum	($1,653,390.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (Contract (FAASt 136271))	1.00	Lump Sum	$8,726,607.00	Uncompleted

CRC Gross Cost	$7,073,217.00
Total 406 HMP Cost	$1,287,705.00
Total Insurance Reductions	$0.00
CRC Net Cost	$8,360,922.00
Federal Share (90.00%)	$7,524,829.80
Non-Federal Share (10.00%)	$836,092.20

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
0	Eligible	Awarded	PA-02-PR-4339-PW-11526(14381)	$8,360,922.00	90 %	$7,524,829.80	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

8/18/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 698439

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: $8,360,922.00 (CRC Gross Cost $7,073,217.00 + Mitigation Amount $1,287,705.00)

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) #1277752:

FAASt Distribution Streetlighting - Las Maria (Distribution)

Location: Distribution Streetlighting - Las Marias

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: $8,360,922.00 (CRC Gross Cost $7,073,217.00 + Mitigation Amount $1,287,705.00)

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt Distribution Streetlighting - Las Maria (Distribution) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

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

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

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

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

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

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt Streetlight - Las Marías (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt Streetlight - Las Marías (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 - The Applicant must obtain any required permits from the Planning Board prior to initiating work and comply with any conditions of the permit. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa apply for damage# 1277752. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are, found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the

sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.

- Endangered Species Act (ESA) - Birds The below conservation measures apply damage#1277752 to the following species: Puerto Rican broad-winged hawk and Puerto Rican sharp shinned 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 broad-winged hawk (Buteo platypterus): December-June and Puerto Rican sharp-shinned hawk (Accipiter striatus venator): December-June. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. Data should also include a photo of the nest and eggs, relocation site GPS coordinates, and the time and date of the relocation. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.
- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning to 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 Streetlight - Las Marías (Distribution)**.

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 09/20/2023 12:07 PM PDT

Review Comments

LNA 09/20/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 10/02/2023 1:55 PM PDT

Review Comments

Recipient review completed. Project is ready for Applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $8,360,922.00 for subaward number 11526 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 10/04/2023

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Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	698458 **P/W #** 11518	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Streetlighting - Guaynabo] (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 #223402; [FAASt] Distribution Streetlighting - Guaynabo (Distribution)

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

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Distribution Streetlighting - Guaynabo
- **Facility Description:** The Guaynabo municipality has a total of 5056 luminaires of which damage was estimated for 70% of these luminaires. • Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities • Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting • Luminaire/Light Bulb – The light emitting part of a streetlight • Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode • Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system • Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** [redacted]

General Damage Information:

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

Final Scope

223402 **[FAASt] Distribution Streetlighting**

Introduction

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

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

Facilities

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

Physical Address	Guaynabo, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

Pole Replacement

- Remove existing streetlight poles, including lighting components and install new streetlight poles, including lighting components, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet. All pole installations are to replace existing poles.

- Locations; no new locations are included in this scope of work. Refer to Appendix K column D (Soil area and depth impact) for the depths of the poles to be installed.

    - Remove the existing foundations as specified in Appendix G- Cost Estimate and replace them with a new concrete foundation in the same location. Refer to Appendix J for design criteria.[1]
    - Brushing will be required in locations as identified in Appendix K ("Brushing/Clearing Required column) to enable construction. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 10 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. No tree removal will be completed as part of this scope.

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

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

    - All work for this program will be performed within the current electrical right-of-way for each of the municipalities.
    - Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].

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

Trenching/Underground (Replacing Underground Circuit)

- Remove existing trenching and install new trenching within our existing 5' electrical Right of Way as specified in Appendix K. The trench's dimensions are described by LUMA Trench Standard STL-16 (Appendix I), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and follow a straight line between the streetlight pole and its power connection. This activity does not require any vegetation clearance and/or access clearance.
- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].

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

Material Disposal

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

Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Bayamón Warehouse, [redacted]. Refer to Appendix M for Warehouse location.

Specific List of Permits Required:

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

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

[3] Refer to column M (Earthwork/Prep work Req'd), filter by values equal to YES. Coordinates are identified in

column F (Latitude) and column G (Longitude).

Considerations.

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Project Estimate

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

Project Cost Estimate	**428 Estima**
Planning, Permits and Applications **(FAASt 335168)**	$116,534.
Environmental Management **(FAASt 335168)**	$649,011.
Project Management **(FAASt 335168)**	$416,414.
Engineering **(FAASt 335168)**	$797,790.
Construction	$8,994,553.
Contingency	$768,201.
SUBTOTAL	**$11,742,504.**
428 FAASt Project 698458	**$9,762,754.5**
FAASt Project A&E 335168	**$1,979,750.2**

Please refer to Appendix G for Cost Estimate Details.

Work To Be Completed (WTBC): $ 11,742,504.85

A&E Deduction (Global A&E FAASt 335168) $1,979,750.26

Project Total Cost: $ 9,762,754.59

Project Notes

1. For detailed cost estimate, please refers to document labeled: Appendix G - Cost Estimate Guaynabo Municipality - Completed Rev2A.xlsx
2. Refer to detailed SOW provided in document 698458-DR4339PR-Detailed SOW Guaynabo Phase 1 High Priority signed.pdf.
3. For reference documents Appendix A thru L, see file labeled:

   Appendix A – Approved Supplier List

   Appendix B – Work Zones Map

   Appendix C – Intentionally Left in Blank

   Appendix D – LUMA Wildlife Avian and Historical Protection Procedure #335

   Appendix E – Consent to Federal Funding Letter- FEMA/COR3

   Appendix F – FID Coordinates

   Appendix G – Cost Estimate

   Appendix H – Intentionally Left in Blank

   Appendix I – LUMA Streetlighting Construction Standards

   Appendix J – LUMA Distribution Design Manual

   Appendix K – EHP Checklist

   Appendix L – EHP Maps Guaynabo

   Appendix M – Warehouse Location

3. For EHP Requirements, refer to pages 5 to 7 of the detailed SOW and reference documents: Appendix K & L.
4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335158 - FAASt A&E PREPA).
5. All streetlight trench rebuilds will be performed in the same location and with the same dimensions as the existing damaged one.
6. No new trenches are considered under the project.
7. The trenches are described by LUMA Trench Standard STL-16 (attached in the project), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and following a straight line between the streetlight poles.

406 HMP Scope

Project number: 698458; FAASt [Distribution Streetlighting - Guaynabo] (Distribution)

Damage #223402; FAASt Distribution Streetlight Guaynabo

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

Location: Guaynabo, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Guaynabo Municipality, PREPA has a total of 3,003 streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

406 Mitigation Scope of Work:

- Replace (889ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (76ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (1354ea) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (0ea) 8ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (22ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (octagonal Concrete) poles.
- Replace (5ea) 4ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (1ea) 8ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (33ea) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles
- Replace (58ea) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (130ea) 33ft octagonal concrete poles by (130ea) 39ft octagonal concrete poles.
- Replace (309ea) 35ft galvanized poles by (309ea) 35ft S3.5 galvanized poles.
- Replace (56ea) 30ft aluminum poles by (56ea) 40ft aluminum poles.
- Replace (48ea) 30ft aluminum poles breakaway bases by (48ea) 40ft aluminum poles breakaway bases.
- Replace (56ea) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (56ea) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

-

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$ 605,024.35
+ HM (Applicant A&E, Management & General Conditions) =	$ 248,032.07
Hazard Mitigation Total Cost =	**$ 853,056.42**

-

HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $853,056.42 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (v0 Engineering & Design Services - (A&E Deduction - FAASt Project 335168 Global A&E PREPA))	1.00	Lump Sum	($1,979,750.26)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (v0 Contract - PREPA FAASt Project 136271)	1.00	Lump Sum	$11,742,504.85	Uncompleted

CRC Gross Cost	$9,762,754.59
Total 406 HMP Cost	$853,056.42
Total Insurance Reductions	$0.00
CRC Net Cost	$10,615,811.01
Federal Share (90.00%)	$9,554,229.91
Non-Federal Share (10.00%)	$1,061,581.10

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-11518(14377)	$10,615,811.01	90 %	$9,554,229.91	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

8/14/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 698458

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: $10,615,811.01 (CRC Gross Cost $9,762,754.59 + Mitigation Amount $853,056.42)

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) #223402:

[FAASt] Distribution Streetlighting - Guaynabo (Distribution)

Location: Distribution Streetlighting - Guaynabo

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: $10,615,811.01 (CRC Gross Cost $9,762,754.59 + Mitigation Amount $853,056.42)

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

Obtain and Maintain Requirement:

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

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

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

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

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

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

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

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

O&M Requirements

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

406 Mitigation

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

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) - The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Conditions for the Puerto Rican Boa apply for damage# 223402. 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within

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

- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination- 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning to borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material.
- NHPA - Construction Phase: a. The Subrecipient and/or Subrecipient's contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. FEMA requires that an archaeologist, who meets the Secretary of the Interior (SOI) Qualification Standards (36 CFR Part 61) for archaeology, be present to monitor all trenching activities in the area adjacent to Caparra National Historic Landmark from PR-2 intersection with Calle F and PR-2 intersection of Calle Las Flores (See Figure 1). The Subrecipient and/or Subrecipient's contractor must follow the archaeological monitoring plan attached to the Construction Management Plan. d. Additional staging areas and/or work pads within work site area haven't been identified yet. The Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. e. If there are any further changes to the SOW, including any increase in the extent of ground disturbance, the applicant must notify FEMA beforehand, prior to engaging in further activities not within the current SOW.

EHP Additional Info

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

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 10/16/2023 7:14 AM PDT

Review Comments

LNA 10/16/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 10/16/2023 10:03 AM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements and PA policy. 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 $10,615,811.01 for subaward number 11518 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 10/16/2023

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	704679 **P/W #** 11524	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt Coamo Streetlight (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
Process Step	Obligated	**Incident End Date**	11/15/2017

Damage Description and Dimensions

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

Damage #425151; FAASt Coamo Streetlight (Distribution)

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

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Coamo Distribution Streetlighting
- **Facility Description:** The Coamo municipality has a total of 5967 luminaires of which damage was estimated for 70% of these luminaires. Additional descriptions of typical components of a streetlight system are described below: • Pole – This can be either a standalone structure intended to house a streetlight, or a utility pole shared with other overhead utilities • Arm – A piece of hardware affixed to a pole to which a luminaire is mounted. The arm serves to position the streetlight over the street for optimal lighting • Luminaire/Light Bulb – The light emitting part of a streetlight • Light controller (e.g., photocell) – A hardware device affixed to the luminaire which controls the operating mode • Communication network – A wired or wireless system that allows the smart streetlight to communicate with other devices and the control system • Technology control system – A software platform that allows a remote operator to set the operating parameters for the smart streetlight or manually override the parameter if needed.
- **Approx. Year Built:** 1970
- **GPS Latitude/Longitude:** [redacted]

General Damage Information:

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

Final Scope

425151 **FAASt Coamo Streetlight (Distribution)**

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Distribution Streetlighting Coamo project (Coamo municipality) under DR-4339-PR Public Assistance. The document provides a description of

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

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

Facilities

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

Physical Address	Coamo, Puerto Rico
Coordinates	Please refer to Appendix F for Coordinates

Project Scope of Work
Streetlight Repairs:

Proposed 428 Public Assistance Scope of Work:

Lighting Components Replacement

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

Pole Replacement

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

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

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

- All work for this program will be performed within the current electrical right-of-way for each of the municipalities.
- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].
- This scope of work will not affect water or sewer utility services.

Trenching/Underground (Replacing Underground Circuit)

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

- Coordinates for streetlight poles where ground disturbance is anticipated can be found in Appendix G[2] and Appendix K[3].
- This scope of work will not affect water or sewer utility services.

Material Disposal

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

Staging Area

- All materials are stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Ponce Warehouse, [redacted]. Refer to Appendix M for Warehouse location.

Specific List of Permits Required:

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

Fill, gravel, sand, etc.:

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

List of Equipment to be used:

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

Project Estimate

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the below table. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and

may be subject to change. LUMA has identified risks and allowances (10% of project cost) for the mitigation of potential known risks.

Project Cost Estimate	428 Es
Planning, Permits and Applications (FAASt 335168)	$111,
Environmental Management (FAASt 335168)	$620,
Project Management (FAASt 335168)	$611,
Engineering (FAASt 335168)	$1,343,
Construction	$13,199,
Contingency	$1,112,
TOTAL PROJECT COST ESTIMATE	**$16,999,386.35**
428 FAASt Project 704679	**$14,311,922.45**
FAASt Project A&E 335168	**$2,687,463.90**

Please refer to Appendix G for Cost Estimate Details.

Work To Be Completed (WTBC): $16,999,386.35

A&E Deduction (Global A&E FAASt 335168) -$2,687,463.90

Project Total Cost: $14,311,922.45

Project Notes and Attachments

1. **For detailed cost estimate, please refers to document labeled: *Appendix G-Cost Estimate Coamo Municipality-Completed Rev1.xlsx***
2. Refer to detailed SOW provided in document *704679-DR4339PR-Detailed SOW Coamo Rev1 - DSOW - signed.pdf*
3. For reference documents Appendix A thru L, see file labeled.

Appendix A – Approved Supplier List

Appendix B – Work Zones Map

Appendix C – Intentionally Left In Blank

Appendix D – LUMA Wildlife Avian and Historical Protection Procedure #335

Appendix E – Consent to Federal Funding Letter- FEMA/COR3

Appendix F – FID Coordinates

Appendix G – Cost Estimate

Appendix H – Intentionally Left In Blank

Appendix I – LUMA Streetlighting Construction Standards

Appendix J – LUMA Distribution Design Manual

Appendix K – EHP Checklist

Appendix L – EHP Maps Coamo

Appendix M – Warehouse Locations

4. For EHP Requirements, refer to pages 5 to 6 of the detailed SOW and reference documents: Appendix J & K.

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).

6. All streetlight trench rebuilds will be performed in the same location and with the same dimensions as the existing damaged one.

7. No new trenches are considered under the project.

8. The trenches are described by LUMA Trench Standard STL-16 (attached in the project), which states that the typical trench width is 1 foot, and the typical trench depth is 3.5 feet. For this project, the typical trench was defined to have an average length of 100 feet and following a straight line between the streetlight poles.

406 HMP Scope

Project number: 704679; FAASt Coamo Streetlight (Distribution)

Damage # 425151; FAASt Coamo Streetlight - (Distribution)

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

Location: Coamo, Puerto Rico

GPS Latitude/Longitude: [redacted]

Hazard Mitigation Narrative

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

In the Coamo Municipality, PREPA has a total of 4,656 ea. streetlights luminaries. The Method of Repair (MOR) include the replacement of the damage lighting components including photocells, luminaires, arms, and associated hardware. Also include the replacement of the damage distribution and streetlight poles (wood, concrete, galvanized & aluminum), the replacement of the aerial secondary wiring connections, the construction of new concrete base for the aluminum streetlight poles and new trenches for the streetlighting secondary underground circuits. According to the information provided by the Applicant, due to the high velocity hurricane winds, wind-blown debris, and prolonged heavy rain, were the main cause of the damages of the facilities.

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

1. To avoid damage in a future event, the Applicant is proposing as a mitigation measure, increase the strength of the poles, arms, aluminum poles breakaway bases, and foundations (concrete bases) by increasing the wind tolerance of all materials to 160mph. The FAASt MOR used PREPA distribution standards and specifications that were based on a 90mph sustained winds for all materials. Although in PREPA Technical Communication #13-02 (August 22, 2013) a design-criteria of 145mph

winds were published, the specifications for streetlighting material were never revised, and in the specification documents, the 90mph winds stayed as the requirement for procurement purposes of all streetlighting materials. The above mitigation measures will protect and make the affected infrastructure more resistant, stronger, and resilient to similar hazards. Refer to Appendix J: Section VI.D.1 of the PAPPG V3.1.

406 Mitigation Scope of Work:

- Replace (3,161 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (112 ea.) 8ft galv. steel arms (90mph by 160mph winds resistant) for (steel/concrete/wood) poles.
- Replace (162 ea.) 4ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (11 ea.) 12ft galv. steel arms (90mph by 160mph winds resistant) for (octagonal concrete) poles.
- Replace (29 ea.) 12ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (1 ea.) 15ft aluminum arm (90mph by 160mph winds resistant) for (aluminum) poles.
- Replace (33 ea.) 33ft octagonal concrete poles by (33 ea.) 39ft octagonal concrete poles.
- Replace (1,229 ea.) 35ft galvanized poles by (1,229 ea.) 35ft S3.5 galvanized poles.
- Replace (26 ea.) 30ft aluminum poles by (26 ea.) 40ft aluminum poles.
- Replace (25 ea.) 30ft aluminum poles breakaway bases by (25 ea.) 40ft aluminum poles breakaway bases.
- Replace (26 ea.) 30ft aluminum poles concrete bases [2.5ft(D) x 5.5ft(H)] by (26 ea.) 40ft aluminum poles concrete bases [3ft(D) x 10ft(H)].

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$1,481,726.00
+ HM (Applicant A&E, Management & General Conditions) =	$ 579,175.35
Hazard Mitigation Total Cost =	**$2,060,901.35**

-

HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is $2,060,901.35 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (v0 Engineering and Design Services - PREPA FAASt A&E 335168)	1.00	Lump Sum	($2,687,463.90)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (v0 Contract - PREPA FAASt Project 136271)	1.00	Lump Sum	$16,999,386.35	Uncompleted

CRC Gross Cost	$14,311,922.45
Total 406 HMP Cost	$2,060,901.35
Total Insurance Reductions	$0.00
CRC Net Cost	$16,372,823.80
Federal Share (90.00%)	$14,735,541.42
Non-Federal Share (10.00%)	$1,637,282.38

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-11524(14378)	$16,372,823.80	90 %	$14,735,541.42	11/2/2023

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

8/16/2023

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 704679

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: $16,372,823.80 (CRC Gross Cost $14,311,922.45 + Mitigation Amount $2,060,901.35)

COMMERCIAL INSURANCE INFORMATION

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

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

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

Mapfre Praico Insurance Company (1398178000644)

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

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

Policy Limits: $300,000,000.00

RCV or ACV: Replacement Cost Value

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

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

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

Damaged Inventory (DI) #425151:

FAASt Coamo Streetlight (Distribution)

Location: Coamo Distribution Streetlighting

GPS Coordinates: [redacted]

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: $16,372,823.80 (CRC Gross Cost $14,311,922.45 + Mitigation Amount $2,060,901.35)

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

Obtain and Maintain Requirement:

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

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

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

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

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

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

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

…

5. If an applicant has an insurance requirement from a previous event:

a. FEMA will reduce assistance by the actual or anticipated insurance proceeds, or the amount of insurance required in the previous disaster, whichever is greater.

b. FEMA will only consider insolvent insurers, legal fees, or apportionment of proceeds as described in Section VII, Part 2(A)(3) and (4) when the applicant's anticipated or actual insurance proceeds are higher than the amount of insurance required in the previous disaster.

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt Coamo Streetlight (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt Coamo Streetlight (Distribution)**.

Environmental Historical Preservation

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

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.
- Executive Order 11988 - Floodplains - The Applicant must obtain any required permits from the Planning Board prior to initiating work and comply with any conditions of the permit. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files.
- Endangered Species Act (ESA) -The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Endangered Species Act (ESA) - Puerto Rican Boas 1. Inform all personnel about the potential presence of the PR boa and the VI boa in areas where the proposed work will be conducted. Photographs of the PR and VI Boa are to be prominently displayed at the site. The recipient must ensure that project personnel is able to correctly identify a PR or VI boa. For information on PR boa, please visit: https://ecos.fws.gov/ecp/species/6628. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated, buffer zones, and areas to be excluded and protected, should be clearly marked in the project plan and in the field to avoid further habitat degradation into forested areas. Once areas are clearly marked, and prior to any construction activity, including site preparation, project personnel able to correctly identify a PR or VI boa must survey the areas to be cleared to ensure that no boas are present within the work area. Vehicle and equipment operation must remain on designated access roads/paths and within rights-of way. 3. If a PR boa is found within any of the working or construction areas, activities should stop in the area where the boa was found. Do not capture the boa. If boas need to be moved out of harm's way, project personnel designated by the recipient shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue. 4. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the boa (PRDNER phone #s: 787-724-5700, 787-230-5550, 787-771-1124). If not possible, the animal should be left alone until it leaves the vehicle on its own. 5. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If PR boas are, found within debris piles, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future. 6. For all boa sightings (dead or alive), personnel designated by the recipient must record the time and date of the sighting and the specific location where the boa was found. Data should also include a photo of the animal dead or alive, and site GPS coordinates, and comments on how the animal was detected and its behavior. If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. All boa sighting reports should be sent to

the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787- 851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.

- Endangered Species Act (ESA) - Birds The below conservation measures apply to the following species: Puerto Rican parrot, Puerto Rican broad-winged hawk, Puerto Rican nightjar. 8. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (Amazona vittata): February to June; Puerto Rican broad-winged hawk (Buteo platypterus): December-June; Puerto Rican nightjar (Antrostomus noctitherus): February-August. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. Data should also include a photo of the nest and eggs, relocation site GPS coordinates, and the time and date of the relocation. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 206, 787-510-5207, marelisa_rivera@fws.gov.
- National Historic Preservation Act (NHPA) - a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage, and dispose petroleum products, hazardous materials, and toxic waste in accordance with the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning to 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 Coamo Streetlight (Distribution)**.

Final Reviews

Final Review

Reviewed By Amaro, Luis N. **Reviewed On** 09/14/2023 10:04 AM PDT

Review Comments

LNA 09/14/23. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 09/18/2023 8:17 PM PDT

Review Comments

Recipient review completed. Project is ready for applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $16,372,823.80 for subaward number 11524 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 09/19/2023