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

MOTION SUBMITTING THREE FEMA APPROVAL 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 submit the following:

I. Submittal of FEMA Approvals and Request for Confidentiality

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

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

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

2. On 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. The list of projects submitted by PREPA included "FAASt Rio Grande Estate Substation CH-2306 (Substation)" and "FAASt San Juan 115kV Underground Transmission Loop (Transmission)."

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 damages.

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. Among the SOWs submitted to this Energy Bureau were the "FAASt Rio Grande Estate Substation

CH-2306 (Substation)" and "FAASt San Juan 115kV Underground Transmission Loop (Transmission)" T&D Projects.

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, including the "FAASt Rio Grande Estate Substation CH-2306 (Substation)" and "FAASt San Juan 115kV Underground Transmission Loop (Transmission)" T&D Projects SOWs. 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 Pole and Conductor Repair-Bayamon Group 1] (Distribution)" T&D Project.[3]

7. On September 22, 2021, the Energy Bureau issued a Resolution and Order. It determined that most of the SOWs for T&D projects submitted by LUMA were necessary to

[3] The "FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution)" T&D Project was submitted originally to the Energy Bureau as the "Distribution Pole & Conductor Replacement," which encompassed pole and conductor replacement projects throughout Puerto Rico but was later divided into individual projects per regions.

improve the system's reliability ("September 22nd Order"). Therefore, it approved most of the projects presented in the August 30th Motion, including the "FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution)" T&D Project SOW. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the projects, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

8. In compliance with the June 8 and September 22nd Orders, LUMA hereby submits copies of approvals by FEMA of the projects issued on December 20, 2022.[4] *See* **Exhibit 1** to this Motion. The document states FEMA's approvals and includes the cost 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"). The FEMA approvals of the "FAASt [Distribution Pole and Conductor Repair-BayamonGroup 1] (Distribution)", "FAASt Rio Grande Estate Substation CH2306 (Substation)", and "FAASt San Juan 115kV Underground Transmission Loop (Transmission)" T&D Projects are protected from disclosure as CEII, *see e.g.*, 6 U.S.C. §§ 671-674; 18 C.F.R. §388.113 (2020), and pursuant to the Bureau's Policy on Management of Confidential Information. *See* Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, as amended by Resolution dated September 20, 2016.

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

II. Memorandum of Law in Support of Request for Confidentiality

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

CEII under seal of confidentiality.[5] In at least two proceedings on Data Security,[6] and Physical Security,[7] this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

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

[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) *but see* Resolution and Order of February 12, 2021 reversing in part, grant of confidential designation).

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

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

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

18. 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.

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

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

Id.

20. 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.*

21. The Critical Infrastructure Information Act of 2002, 6 U.S.C. §§ 671-674 (2020), part of the Homeland Security Act of 2002, protects critical infrastructure information ("CII").[8] CII is defined as "information not customarily in the public domain and related to the security of critical infrastructure or protected systems [...]" 6 U.S.C. § 671 (3).[9]

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

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

[9] CII includes the following types of information:

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

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

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

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

C. Identification of Confidential Information

24. In compliance with the Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, below, find a table summarizing the hallmarks of this request for confidential treatment.

Document	**Name**	**Pages in which Confidential Information is Found, if applicable**	**Summary of Legal Basis for Confidentiality Protection, if applicable**	**Date Filed**
Exhibit 1	FAASt [Distribution Pole and Conductor Repair-BayamonGroup 1] (Distribution)	Pages 1, 2, 7, and 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	December 29, 2022
Exhibit 1	FAASt Rio Grande Estate Substation CH-2306 (Substation)	Pages 1, 2, 4, and 14	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	December 29, 2022
Exhibit 1	FAASt San Juan 115kV Underground Transmission Loop (Transmission)	Pages 1, 2 and 9	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	December 29, 2022

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

RESPECTFULLY SUBMITTED.

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

In San Juan, Puerto Rico, on this 29th day of December 2022.

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

/s/ Yahaira De la Rosa Algarín
Yahaira De la Rosa Algarín
RUA NÚM. 18,061
yahaira.delarosa@us.dlapiper.com

Exhibit 1

FEMA Approvals

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	673836 **P/W #** 11041	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1231551; FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution) (Cana 1710-10, Cana 1710-03, Bayamon Tc 13kV #2 1716-03, Crea 1717-03 Candelaria Arenas 1718-02, Rio Bayamon Ii 1720-07)

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

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Distribution Pole and Conductor Repair - Bayamon Group 1
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1967
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

General Damage Information:

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

Final Scope

1231551

FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution) (Cana 1710-10, Cana 17

Introduction

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

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

Facilities

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

Name	Feeder Number	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date
Cana	1710-01	[redacted]		3 Phase	13.2	More than 20 years
Cana	1710-03			3 Phase	13.2	More than 20 years
Bayamón Tc 13kV #2	1716-03			3 Phase	13.2	More than 20 years
Crea	1717-03			3 Phase	13.2	More than 20 years
Candelaria Arenas	1718-02			3 Phase	13.2	More than 20 years
Rio Bayamón II	1720-07			3 Phase	13.2	9 years
Levittown	1806-02			3 Phase	13.2	More than 20 years

Project Scope of Work

Proposed 428 Public Assistance Scope of Work:

Feeder 1710-01 Scope:

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

• Remove two 40ft wood poles and one 40ft concrete poles install two 45ft H4 concrete poles in the same location. Cross arms,

insulators and all associated hardware will also be replaced along with the new structure.

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

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

Feeder 1710-03 Scope:

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

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

Feeder 1716-03 Scope:

• Remove one 30ft wood pole and install one 65ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

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

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

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

• Remove one 35ft wood pole and install one 60ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 35ft concrete pole and install one 60ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

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

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

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

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

• Remove one 45ft wood pole and install one 60ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

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

• Remove one 55ft concrete pole and install one 55ft H6 concrete pole in the same location. Cross arms, insulators and all

associated hardware will also be replaced along with the new structure.

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

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

Feeder 1717-03 Scope:

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

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

• Remove one 40ft wood pole and install one 60ft galvanized steel S8 pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

Feeder 1718-02 Scope:

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

Feeder 1720-07 Scope:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

• Remove one 45ft wood pole and install one 60ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove two 45ft wood poles and install two 60ft galvanized steel S8 poles in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

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

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

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

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

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

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

• Remove one 55ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 60ft wood pole and install one 45ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 60ft wood pole and install one 50ft H4 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

• Remove one 60ft wood pole and install one 50ft H6 concrete pole in the same location. Cross arms, insulators and all associated hardware will also be replaced along with the new structure.

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

Feeder 1806-02 Scope:

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

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

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

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

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

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

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

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

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

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

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

Project Estimate

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

Project Cost Estimate	Total	428 Estimate	406 Hazard Mitigation
Planning, Permits and Applications	$112,442.00	$112,442.00	$0
Environmental Management	$160,721.00	$160,721.00	$0
Project Management	$502,021.50	$417,901.20	$84,120.30
Engineering	$251,010.75	$208,950.60	$42,060.15
Construction	$5,020,215.00	$4,179,012.00	$841,203.00
Contingency	$604,641.03	$507,902.68	$96,738.35
Total Project Estimate	**$6,651,051.28**	**$5,586,929.48**	**$1,064,121.80**
		FAASt Project #673836 (428) Total	**$4,686,914.68**
		FAASt Project #673836 (406) Total	**$1,064,121.80**
		FAASt A&E #335168 Total	**$900,014.80**
		Total Cost	**$6,651,051.28**

Work To Be Completed (WTBC): $5,586,929.48

A&E Deduction (Global A&E FAASt 335168) -$900,014.80

Project Total Cost: $4,686,914.68

Project Notes

1. For a full description of the Scope of Work contents for this project please refer to file: *Revised FEMA SOW.pdf*
2. For a detailed Cost Estimate WTBC refer to document: *673836-DR4339PR-Appendix H - Detail Cost Estimate - Bayamon Group 1 including decimals.xlsx*
3. Any claim or disbursement related to Engineering or Architecture (A&E) services for this project must be claimed/disbursed from Project 335168, which was prepared to cover A&E expenses related to this Applicant's FAASt Projects. The A/E funds for $900,014.80 have been calculated for this project (all DIs). However, the actual A&E costs will be claimed in GM project #335168. This amount will be included in this project with a negative dollar amount, to avoid duplicity of funds.
4. This project is part of 36271-MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.
5. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt PREPA work (see project: 335158 - FAASt A&E PREPA).
6. For EHP Requirements, refer to pages 12 to 15 of the detailed SOW and reference document: *Revised FEMA SOW.pdf*
7. EHP Notes:
    - Description of Staging Area: The permanent staging area will be located inside the existing LUMA Bayamón Technical Yard (18.3778326, -66.1444106), no additional or temporary staging areas are required. The expected use is to stage materials to be installed.
    - Ground disturbance: 1) Remove the existing pole and use augering to enlarge the hole. 2) Create an auger hole within 3 feet of the existing pole. Anticipated extent of ground disturbance will be 24'' in diameter and 7' deep.
    - Hazardous Material: 1) Transformers and pole disposal will be handled as per LUMA Waste Management Plan. LUMA will provide actual disposal locations and quantities as a Condition of FEMA Record of Environmental Considerations. 2) The removal of the transformer will require testing of the existing oil for PCB levels, drain oil, and delivery to the approved waste disposal site as per Environmental Regulations. 3) Removal of wood poles with creosote treatment will be handled according to LUMA Waste Management plan.

406 HMP Scope

Project number: 673836

Damage #1231551; FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution) (Cana 1710-10, Cana 1710-03, Bayamon Tc 13kV #2 1716-03, Crea 1717-03, Candelaria Arenas 1718-02, Rio Bayamon II 1720-07, Levittown 1806-02.,).

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

Location: Caguas, Puerto Rico

(Start GPS Latitude/Longitude: [redacted] End: [redacted]).

Hazard Mitigation Narrative

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

Project # 673836 (Distribution Critical Poles & Conductors Repair/Replacement).

The Distribution Pole and Conductor Repair-Bayamon Group 1 consists of 7 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: (Cana 1710-01, Cana 1710-03, Bayamon TC 13kV #2 1716-03, Crea 1717-03, Candelaria Arenas 1718-02, Rio Bayamon II 1720-07), Levittown 1806-02.

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

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

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Mitigation Measures *(Replacement)*

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

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

Feeder 1710-01 Scope: 6EA.poles.

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

Feeder 1710-03 Scope: 2EA.poles.

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

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

Feeder 1716-03 Scope: 29EA. Poles.

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

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

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

Replace one (1) 55ft concrete H6 pole by one (1) 50ft galvanized steel S8 pole.

Replace four (4) 60ft concrete H6 poles by four (4) 70ft galvanized steel S8 poles.

Replace two (2) 60ft concrete H6 poles "self-support" concrete bases {[(5'(L) x 5'(W) x 10'(D)) - (1.75'(L) x 1.75'(W) x 9'(D))] / 27} = 8.5 CY: by two (2) 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY - 8.5CY) x 2ea] = 4CY.

Install two (2) new 70ft galvanized steel S8 poles "self-support" concrete bases {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.75'(L) x 2.75'(W) x 11'(D))] / 27} = 10.5 CY. = [(10.5CY) x 2ea] = 21CY.

No 406 Hazard Mitigation work identified to replace two (2) 65ft H6 concrete pole. Note: As discussed and agreed in previous meetings, the 70ft galvanized steel S8 pole is cheaper than the 65ft H6 concrete pole. So, in these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

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

Feeder 1717-03 Scope: 5EA. Poles.

Replace three (3) 45ft concrete H4 poles by three (3) 50ft galvanized steel S8 poles.
Replace one (1) 50ft concrete H4 pole by one (1) 50ft galvanized steel S8 pole.
No 406 Hazard Mitigation work identified to replace one (1) 60ft galvanized steel S8 pole. The mitigation is accomplished by the 428 PA method of repair (MOR).

Feeder 1718-02 Scope:

No 406 Hazard Mitigation work identified at this time.

Feeder 1720-07 Scope: 146 EA. Poles.

Replace forty-one (41) 45ft concrete H4 poles by forty-one (41) 50ft galvanized steel S8 poles.
Replace fourteen (14) 45ft concrete H6 poles by fourteen (14) 50ft galvanized steel S8 poles.
Replace fifteen (50) 50ft concrete H4 poles by fifteen (50) 50ft galvanized steel S8 poles.
Replace thirty-four (34) 50ft concrete H6 poles by thirty-four (34) 50ft galvanized steel S8 poles.
Replace one (1) 60ft concrete H6 pole by one (1) 60ft galvanized steel S8 pole.
No 406 Hazard Mitigation work identified to replace three (3) 50ft galvanized steel S8 pole. The mitigation is accomplished by the 428 PA method of repair (MOR).
No 406 Hazard Mitigation work identified to replace three (3) 60ft galvanized steel S8 pole. The mitigation is accomplished by the 428 PA method of repair (MOR).

Feeder 1806-02: 21EA. Poles.

Replace fifteen (15) 45ft concrete H4 poles by fifteen (15) 50ft galvanized steel S8 poles.
Replace six (6) 45ft concrete H6 poles by six (6) 50ft galvanized steel S8 poles.

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Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	$841,203.00
+ HM (Applicant A&E, Management & General Conditions) =	$222,918.80
Hazard Mitigation Total Cost =	$1,064,121.80

HMP Cost-Effectiveness Calculations

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

HMR = ($841,203.00 / $4,686,914.68) x 100 = 21.03%

The cost of this Hazard Mitigation Proposal (HMP) is **21.03%** of the repair or restoration costs and is deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April2018, Chapter 2, VII., Section C___ 15%Rule, **_X_ 100% Rule**, ___ BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost effective requirements.

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

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

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

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Cost

Code	Quantity	Unit	Total Cost	Section
3510 (A&E Deduction (Global A&E FAASt 335168) Version 0)	1.00	Lump Sum	($900,014.80)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (FAASt Project 136271 Total Version 0)	1.00	Lump Sum	$5,586,929.48	Uncompleted

CRC Gross Cost	$4,686,914.68
Total 406 HMP Cost	$1,064,121.80
Total Insurance Reductions	$0.00
CRC Net Cost	$5,751,036.48
Federal Share (90.00%)	$5,175,932.84
Non-Federal Share (10.00%)	$575,103.64

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-11041(12954)	$5,751,036.48	90 %	$5,175,932.83	12/20/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

10/21/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 673836

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: $5,751,036.48 (CRC Gross Amount $4,686,914.68 + Mitigation Amount $1,064,121.80)

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) #1231551:

FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution) (Cana 1710-10, Cana 1710-03, Bayamon Tc 13kV #2 1716-03, Crea 1717-03 Candelaria Arenas 1718-02, Rio Bayamon Ii 1720-07)

Location Description: Distribution Pole and Conductor Repair - Bayamon Group 1

GPS Coordinates: Start [redacted] End

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: $5,751,036.48 (CRC Gross Amount $4,686,914.68 + Mitigation Amount $1,064,121.80)

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution) (Cana 1710-10, Cana 1710-03, Bayamon Tc 13kV #2 1716-03, Crea 1717-03 Candelaria Arenas 1718-02, Rio Bayamon Ii 1720-07)) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

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

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

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

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

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

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

O&M Requirements

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

406 Mitigation

There is no additional mitigation information on **FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution)**.

Environmental Historical Preservation

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

EHP Conditions

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

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

- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. The applicant is responsible to ensure damaged transformers are handled, managed and disposed of in accordance with all federal and state laws and requirements. Downed electrical equipment may contain toxic and hazardous materials, such as polychlorinated biphenyls (PCBs), and may spill these materials if a rupture occurs. Applicant is responsible for screening transformers that do or may contain PCBs and the area where any related spill occurred. The applicant is then responsible to handle, manage, dispose of, or recycle damaged equipment and contaminated soil as appropriate. Where possible, temporary measures should be implemented to prevent, treat, or contain further releases or mitigate the migration of PCBs into the environment. If damaged equipment or material storage containers must be stored temporarily, containers should be placed on hardened surface areas, such as a concrete or an asphalt for no more than 90 days. Excavated contaminated material should be disposed of in accordance with federal and state laws and requirements. 3. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds.
- NEPA Determination - All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at close-out and must include fill type (private, commercial, etc.), name, fill site GPS coordinates (not of the company/governmental office), address, and type of material.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Distribution Pole and Conductor Repair-Bayamon Group 1] (Distribution)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L. **Reviewed On** 11/01/2022 9:38 AM AST

Review Comments

Project is ready for Recipient Review.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 11/01/2022 9:58 AM AST

Review Comments

Recipient review completed. Project is ready for applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $5,751,036.48 for subaward number 11041 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Nieves, Ezequiel **Signed On** 11/17/2022

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	168226 **P/W #** 10978	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt San Juan 115kV Underground Transmission Loop (Transmission)	**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 #429486; FAASt [115kV Line from Manhole #7 to Manhole #9]

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:** 115kV Line from Manhole #7 to Manhole #9
- **Facility Description:** TL 38000 is a portion of the 115 kV Metropolitan Underground Loop and connects San Juan Steam Plant and Isla Grande GIS. For this project, the areas of interest are the segment between MH-7 and MH-9, which has approximately a 0.90-mile circuit and is located in the metropolitan area of San Juan. The duct installations containing the cables in these segments consist of alternating open-cut duct installations and Horizontal Directional Drilling (HDD) that crosses the Puerto Nuevo River at the Martin Peña Channel. The 115 kV Metropolitan Underground Loop is meant to provide a highly reliable power path around San Juan area that will be protected from severe weather and ties together the most significant Transmission Centers (TCs) with the generation plants of Palo Seco Steam Plant (SP) and San Juan Steam Plant (SP).
- **Approx. Year Built:** 1980
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

General Damage Information:

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

Final Scope

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the TL 38000 San Juan SP - Isla Grande Underground LOOP project ("TL 38000 UG LOOP") 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. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facility for the TL 38000 UG LOOP.

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 A which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA.

Facilities

TL 38000 is a portion of the 115 kV Metropolitan Underground Loop and connects San Juan Steam Plant and Isla Grande GIS. For this project, the areas of interest are the segment between MH-7 and MH-9, which has approximately a 0.90-mile circuit and is located in the metropolitan area of San Juan. The duct installations containing the cables in these segments consist of alternating open-cut duct installations and Horizontal Directional Drilling (HDD) that crosses the Puerto Nuevo River at the Martin Peña Channel. The 115 kV Metropolitan Underground Loop is meant to provide a highly reliable power path around San Juan area that will be protected from severe weather and ties together the most significant Transmission Centers (TCs) with the generation plants of Palo Seco Steam Plant (SP) and San Juan Steam Plant (SP).

Name	Number	GPS Start	GPS End	Voltage (kV)
MH-7 to MH-8	206253	[redacted]		13.2
MH-8 to MH-9	206253			13.2

Project Scope of Work

Structure Age: There are no structures as part of this project.

115kV 38000 Transmission Line:

Proposed 428 Public Assistance Scope of Work

MH-7 to MH-8

A. Remove three 115kV underground cables (approximately 7,400 ft.), size 2750 Kcmil.

B. Remove the existing Sulphur hexafluoride (SF6) splice in MH-8 with all the accessories associate to it.

C. Test duct banks as part of the construction phase (Note: existing duct banks are believed to be in good conditions and do not require replacement).

D. Replace three removed 115k underground cables with new 115kV underground cables of the same size.

MH-8 to MH-9

E. Remove three 115kV underground cables (approximately 7,600 ft.), size 2750 Kcmil, two underground fiber optics cable, and one 500 Kcmil ground cable.

F. Remove the three existing Sulphur hexafluoride (SF6) splice in MH-9 with all the accessories associate to it.

G. Test duct banks as part of the construction phase (Note: existing duct banks are believed to be in good conditions and do not require replacement).

H. Drill nine new boreholes using Horizontal Directional Drilling (HDD) techniques under the Puerto Nuevo River at the Martin Peña Channel (approximately 410 ft. in length each).

I. Expose and remove a portion of the existing concrete-encased duck bank on each side of the channel and connect the nine new ducts coming out from the channel crossing with this existing duct bank.

J. Bring both sides of the new installation into a new concrete-encased duct bank. Install six new 115kV underground cables, size 2750 Kcmil, two underground fiber optics cable and one 500 Kcmil ground cable in the new duct bank.

K. Replace the three existing Sulphur hexafluoride (SF6) splice with three new "Y" splices. The "Y" splices connect one cable per phase to double cable per phase between MH-8 and MH-9 to comply with the ampacity in this section of the project.

L. Abandon old route crossing the river.

Project Estimate

Cost Estimate	
Planning	**$584,325.16**
Preliminary Engineering	$313,477.60
Permitting & Application	$270,847.56
Management	**$1,127,314.51**
Project Management & Controls	$52,785.07
Procurement & Contracting	$54,984.44
Environmental Management	$529,340.00
Construction Management	$490,205.00
Transmission	**$11,543,588.88**
Engineering	$546,700.00
Materials	$3,187,252.17
Construction	$7,809,636.71
General Conditions	**$1,311,150.69**
Contingency	**$2,438,000.00**
Total Project Cost Estimate	**$17,004,379.24**
Total Insurance Received (see note 9)	$2,250,000.00
FAASt Project 168226 Total	$12,496,039.57
FAASt A&E 335168 Total	$2,258,339.67

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

Project Work To Be Completed (WTBC): $17,004,379.24 - $2,258,339.67 = $14,746,039.57 (See note 9)

Project Notes

1. For a full description of the Scope of Work contents for this project please refer to file: *FAAST 168226 - 10066 - San Juan 115kV Underground Transmission Loop (Transmission) - Detailed Project Scope of Work Rev.1.pdf*.

2. For a detailed Cost Estimate WTBC refer to document: *168226-DR4339-38000 UG LOOP LPCE ESTIMATE REV 05-20-22 - FEMA.xlsx*

3. Any claim or disbursement related to Engineering or Architecture (A&E) services for this project must be claimed/disbursed from Project 335168, which was prepared to cover A&E expenses related to this Applicant's FAASt Projects. The A/E funds for $2,258,340.00 have been calculated for this project (all DIs). However, the actual A&E costs will be claimed in GM project #335168. This amount will be included in this project with a negative dollar amount, to avoid duplicity of funds.

4. For EHP Requirements, refer to pages 7 to 12 of the detailed SOW and reference document: *FAAST 168226 - 10066 - San Juan 115kV Underground Transmission Loop (Transmission) - Detailed Project Scope of Work Rev.1.pdf*.

5. The Infrastructure Division Director authorized modifying the Applicant provided scope of work to add specificity with regards to location, damage descriptions and quantities. The additional information was obtained from Applicant submitted documents available in GM project files."

6. Construction Methodology - Horizontal Directional Drill (HDD) EHP Considerations:

   - Prior to drilling activities, the contractor shall set up his temporary work area and mobilize all necessary equipment and materials to construct an entry and exit areas for drilling operations, near Parque Central and Industrial Zone Street.
   - Supply all necessary drilling equipment for completing the crossing of the Martin Peña Channel. This shall include, but not be limited to: Horizontal Directional Drilling rig, drill pipe, drilling fluids, water, drilling motors, reaming cutters, slurry mixing equipment, cuttings separation equipment, spare parts, and downhole survey equipment.
   - Identify existing pipe and remove existing cables, as required.
   - The HDD alignment, profile, drill entrance and exit angle shall be as the drawings that shall be provided to the contractor.
   - Contractor shall furnish and install the high-density polyethylene (HDPE) conduits and conduit spacers inside of the HDPE casing pipe. Supply all necessary materials, equipment, and services to perform the pipeline assembly and installation.
   - Open trenches to intercept the existing pipes.
   - Remove all equipment, material, drilling mud and waste from both sides of the Martin Peña Channel crossing, as per Appendix B - LUMA Waste Management Plan.
   - The general work areas, the right-of-way and all other construction areas shall be graded to their original contours, as per LUMA's Vegetation Management Policy 0320 (Appendix D)

7. Demolition & Salvage EHP Considerations:

   - Complete testing for any containments or hazardous waste.
   - All contaminated materials will be delivered to the approved waste disposal as per Appendix B - LUMA Waste Management Plan.
   - Multiple bins will be available onsite to sort the debris (i.e., metal, wood, general waste). If equipment is to be salvaged, it will be loaded and removed from the site.
   - All debris will be taken to the approved waste disposal facility as per Appendix B - LUMA Waste Management Plan.
   - While completing all demolition activities, a water source will be onsite to mitigate dust.
   - Waste bins will be emptied on a regular basis as required.

8. Description of Staging Area EHP Considerations:

- The main staging area will be located inside the drill areas and will serve as an assembly point for all the materials to be installed. If an additional temporary staging area is required, an area outside of the drill area will be used. This area will require topsoil removal and stockpiling during construction. This area will be restored to its original condition after construction.

9. Total Project WTBC Estimate did not take in to consideration amount of Insurance received.

406 HMP Scope

There is No Hazard Mitigation opportunity identified nor requested by the Sub-applicant. Project is Ready for insurance Completion.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (3510 (((3510 (Engineering And Design Services (Global A&E FAASt 335168)))) Version 0))))	1.00	Lump Sum	($2,258,339.67)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (9001 (9001 (((9001 (Contract (FAASt 136271)))) Version 0)))	1.00	Lump Sum	$17,004,379.24	Uncompleted

CRC Gross Cost	$14,746,039.57
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$14,746,039.57
Federal Share (90.00%)	$13,271,435.62
Non-Federal Share (10.00%)	$1,474,603.95

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-10978(12953)	$14,746,039.57	90 %	$13,271,435.61	12/20/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

9/20/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 168226

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: CRC Gross Cost $14,746,039.57

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) #429486:

FAASt [115kV Line from Manhole #7 to Manhole #9]

Location Description: 115kV Line from Manhole #7 to Manhole #9

GPS Coordinates: Start [redacted] End

Cause of Loss: Wind / Wind Driven Rain

SOV / Schedule #: Not insured

SOV / Schedule Amount: Not insured

Applicable Deductible Amount: N/A

Damage Inventory Amount: CRC Gross Cost $14,746,039.57

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 [115kV Line from Manhole #7 to Manhole #9] because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

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

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

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt San Juan 115kV Underground Transmission Loop (Transmission)**.

406 Mitigation

There is no additional mitigation information on **FAASt San Juan 115kV Underground Transmission Loop (Transmission)**.

Environmental Historical Preservation

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

EHP Conditions

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

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

- Endangered Species Act (ESA): Antillean Manatee 27. The contractor shall keep a log detailing sightings, collisions, or injury to manatees which have occurred during the contract period. Following project completion, a report summarizing the above incidents and sightings will be submitted to Marelisa Rivera, Deputy Field Supervisor, U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, Puerto Rico 00622. Any collision with and/or injury to a manatee shall be reported immediately to the Puerto Rico DNER and the USFWS Caribbean Ecological Services Field Office (787-851-7297; marelisa_rivera@fws.gov). 28. The permit holder and/or contractor shall install and maintain temporary and permanent manatee signs as recommended by USFWS. Signs must be placed in a prominent location for maximum visibility. Areas that are recommended include: dock walkways, dock master offices, near restrooms or other high patron foot traffic areas. Signs must be replaced when faded, damaged or outdated. If the facility is large or has multiple docks with separate walkways that are a considerable distance apart, multiple signs should be installed. These signs must not face the water, must never be attached to pilings or navigational markers in the water. Some exceptions to signs facing the water exist for temporary signs during in-water work. 29. For durability, all signs should be fiberglass, PVC, or metal with rounded corners (hand-sanded to remove all sharp edges and burrs), constructed of 0.08 Gauge 5052-H38 Aluminum with an Alodine 1200 conversion coating and Engineer Grade Type I reflective sheeting. Signs constructed to other specifications may not provide durability acceptable to the consumer. Permit holder may create their own signs, but should be approved by USFWS. For a copy of ready-to-print signs go to: https://www.fws.gov/caribbean/es/documents/ManateeSigns_Letreros.pdf. Applicants and contractors shall refer to the following for procedural manatee guidance for implementing this measure: [http://myfwc.com/wildlifehabitats/managed/manatee/watch-program/]; https://www.youtube.com/watch?v=Xs7zLRtZVOQ]
- Endangered Species Act (ESA): JAXBO - The proposed project must adhere to the USACE NMFS JaxBO dated 11/20/2017, General Project Design Criteria (PDC) AP.1-14 and PDC specific to Activity 8: Transmission and Utility Lines A8.1-A8.11 as applicable. The subgrantee must also adhere to the attached Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office. Failure to comply with these conditions may jeopardize FEMA funding; verification of compliance will be required at project closeout.
- Clean Water Act (CWA): The Applicant Gis responsible for coordinating with and obtaining any required Section 404 permit(s) from the United States Army Corps of Engineers (USACE) and 401 permit(s) from the appropriate state agency prior to initiating work. The Applicant shall comply with all conditions and pre- construction notification requirements of the required permit(s). Any coordination (emails, letters, documented calls) pertaining to these compliance activities must be documented and maintained in the Applicant's permanent files.
- Magnuson-Stevens Fishery Conservation and Management Act (MSA): 1. The Applicant shall comply with Best Management Practices (BMPs) identified by LUMA in their "Preliminary Environmental Mitigation Plan" (dated March 2022; see Appendix 1) to prevent and/or minimize adverse effects to EFH from, primarily, sedimentation. 2. Environmental Protection Agency (EPA) guidance documents such as the publication "Developing Your Stormwater Pollution Prevention Plan, A Guide for Construction Activities" (EPA-833-R-06-004; EPA 2007), as applicable.
- Magnuson-Stevens Fishery Conservation and Management Act (MSA): The applicant shall provide evidence of compliance with the above BMP's and SWPPP. Noncompliance with these conservation measures will jeopardize receipt of federal funds.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA): The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. -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.
- Executive Order 11988 - Floodplains: 1. Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant's permanent files. 2. Applicant shall apply the applicable minimization standards in 44 CFR Part 9 section 9.11(d) to its actions to comply with the requirements under 9.11 Mitigation.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt San Juan 115kV Underground Transmission Loop (Transmission)**.

Final Reviews

Final Review

Reviewed By Soto Toro, Hildelix L. **Reviewed On** 11/02/2022 2:51 PM AST

Review Comments

Project is ready for Recipient Review

Recipient Review

Reviewed By Cintron, Jesus **Reviewed On** 11/09/2022 12:40 PM AST

Review Comments

Review Completed. Pending 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 $14,746,039.57 for subaward number 10978 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Nieves, Ezequiel **Signed On** 11/17/2022

Department of Homeland Security
Federal Emergency Management Agency

General Info

Project #	165268 **P/W #** 11045	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt Rio Grande Estate Substation CH-2306 (Substation)	**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:

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

Damage #425791; FAASt Rio Grande Estate Substation CH-2306

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:** Rio Grande Estate Substation CH-2306
- **Facility Description:** Rio Grande Estates is a 38/13.2-kV substation consisting of a control house, components, and equipment located in a fenced yard.
- **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

425791 **FAASt Rio Grande Estate Substation**

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (SOW) to COR3 and FEMA for the Rio Grande Estates CH 2306 project unde 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 projec

funding to repair, restore, or replace the eligible facility for the Rio Grande Estates 2306 Substation.

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

Facilities

The Rio Grande Estates 2306 Substation experienced substantial damages due to Hurricane Maria in September 2017 and is currently out of service. To serve the loads from this substation a mobile station was installed and remain until the substation returns to service. The purpose of this project is to repair damages, mitigate flooding issues and harden the substation to improve the reliability and resiliency of the Puerto Rico electrical grid.

Name: Rio Grande Estates 2036 Substation

Physical Address: Road 3 Km 28.2 Rio Grande, Puerto Rico

GPS Coordinates: [redacted]

Date of Construction: 1970

Scope of Work

Substation

Proposed 428 Public Assistance Scope of Work:

A. Remove and dispose of 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.

B. Remove and dispose of the existing 38kV and 13.2kV steel structures, concrete dead end structure and poles, the existing transformer and oil circuit breakers, fence work, foundations, ground grid, and all other associated equipment.

C. Replace existing 22.4 MVA, 38/13.2 kV transformer and foundation with a new 33.6 MVA, 38/13.2 kV transformer and new foundation with oil containment provisions including a sump pump, and interconnect with other components.

D. Install one new 46 kV 2000A SF6 breaker with disconnect switches, PTs, CTs, and surge arresters' straddle to the new dead-end structure for the transformer Interconnection with its concrete foundation.

E. Build new concrete pad for mobile substation connection structure, service station transformer, and remote metering.

F. Remove existing 13.2 kV remote metering transformer and install a new 13.2 kV remote metering transformer. Install new 13.2kV underground cable from new remote metering transformer to the control enclosure.

G. Remove existing 15 kV station service transformer and install a new 15 kV station service transformer. Install new 15kV underground cable from new station service transformer to the control enclosure.

H. Remove existing structure for mobile substation termination and install new structure including the 15 kV pothead for mobile substation termination. Install new 15kV underground cable from new mobile substation structure to the control enclosure.

I. Connect three (3) 13.2 kV underground feeders to the new cable risers on distribution poles outside the substation.

J. Install a new control enclosure which contains 15 KV switchgear with eight (8) breakers (5-1200A and 2-2000A breakers) cubicles and provisional cubicle for the protection relays for the feathers, telecom equipment, batteries, Substation Automation System using IEC 61850 technology, enhanced SCADA technology and all associated equipment.

K. Install a new 48 KW emergency generator that will act as a backup feed to the control enclosure and telecom equipment.

L. Replace existing fencing and foundations. New fencing will reduce spacing between posts from 10 ft to 8 ft on center. Foundation wall will be raised an additional 12" above grade.

Transmission Lines

Proposed 428 Public Assistance Scope of Work:

M. Replace existing Gang Operated Air Breaker (GOAB) with new GOAB on existing 38kV concrete pole located outside substation boundary.

IT/Telecom System & SCADA

Proposed 428 Public Assistance Scope of Work:

N. Install SCADA system and associated equipment inside the new Control Enclosure.

O. Replace existing telecommunications tower.

For the proposed general arrangement, refer to document labeled: *165268-DR4339PR-02 Appendix B - Scope of Work Overview.pdf.*

Cost 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.

Planning (FAASt 335168)	$ 926,858.31
Management (FAASt 335168)	$ 464,154.30
Substation-Telecom-Transmission	$ 5,501,532.36
General Conditions	$ 693,623.85
Contingency	$ 903,087.55
Total	**$ 8,489,256.37**

DI# 425791 Work to be Completed (WTBC): **$8,489,256.37**

A&E Deduction (Global A&E FAASt 335168): **-$1,391,012.61**

Project Total Cost: **$7,098,243.76**

For a detailed cost estimate, refer to document labeled: *PN165268-DR4339PR-HMCE-20221017-ARR.xlsx.*

Project Notes:

1. For a detailed SOW, Environmental & Historical Preservation (EHP) requirements, details, and additional information, please refer to document labeled: *165268-DR4339PR-Detailed Scope of Work - Rio Grande Estates CH 2306 (Elevated Control House).pdf.*
2. The Project Total Cost (PA 428) has been adjusted in accordance with the HM 406 Cost validation. For Applicant's response and concurrence, refer to document labeled: "165268-DR4339PR-Rio Grande Estate Substation CH-2306 - Project Summary Project Changes (response).pdf".
3. For reference documents Appendix A thru M, see file labeled: *165268-DR4339PR- DSOW-Appendix A-M.zip.*
4. Architectural and Engineering (A&E) costs are deducted given previously obligated Global A&E Project for the subject FAASt work (see project: 335158 - FAASt A&E PREPA).
5. This project is part of 136271 - MEPA078 Puerto Rico Electrical Power Authority Island Wide FAASt Project.

406 HMP Scope

Project number: 165268

Damage #425791; FAASt Rio Grande Estate Substation CH-2306

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

Location: Rio Grande, Puerto Rico

GPS Latitude/Longitude: Start: [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 Rio Grande Estate Substation CH-2306 was built approximately in 1970 and is located in the Municipality of Rio Grande Puerto Rico. The facility is a 38KV/13.2KV substation with a 12MVA transformer feeding three vacuum breakers that supply three 13.2KV distribution circuits (feeders 2306-01, 2306-02 & 2306-03). The 38KV switch structure has three air breaker switches, one oil circuit breaker, three arrestors and one support structure. The 13.2KV switch structure has seven air breaker switches, three vacuum circuit breaker, three PTs, nine arrestors, capacitor bank and one support structure. This substation is supported by control building, electro-mechanical protection relays, SCADA, battery bank, battery charger, communications, and a remote transformer. According to the information provided by the Applicant, due to the high velocity hurricane winds and prolonged heavy rain (flooding), were the main cause of the damages of the facility.

Project Overview:

As described in the PREPA Island Wide FAASt (FEMA Accelerated Award Strategy) project (PN136271), FEMA selected a sample population of 81 substations. The Rio Grande Estate 2306 Substation was included in the sampling as one of the assets where the cost estimate for PREPA's 392 substations is based on actual damages. The costs of the other 311 substations were extrapolated from the sampled population. The sample set was selected as a representative subset of the entire substation population by

accounting for the geospatial distribution, substation transformer capacity, and function.

The Rio Grande Estates 2306 Substation experienced substantial damages due to Hurricane Maria in September 2017, therefore, the purpose of this project is to repair damages and harden the substation to improve the reliability and resiliency of the Puerto Rico electrical grid.

The strategy for mitigating future loss of service damages to Rio Grande Estate 2306 Substation distribution circuits is accomplished by replacing the original control building and substation equipment with an enclosed control building structure and equipment. The existing AIS (air insulated substation installed in an exterior metal-clad) equipment is currently exposed to damages from high winds, windblown debris, wind driven rain and flooding. The proposed holistic mitigation approach to critical infrastructure that consolidates all substation equipment in an enclosed building is a more cost-effective solution that includes the integration of a substation automation system using IEC 61850 technology and enhanced SCADA technology.

The functional purpose of a substation is to interconnect the transmission and distribution lines using transformers to step-down the voltage and related components necessary to transmit electricity from a high voltage level to a low voltage level. Along the substation, inclusive of design considerations from natural hazard requirements such as wind speed, flying debris, flooding, among others. The substations thus are functionally interdependent due to the necessity of providing power (critical service), if one component within a substation fails, the function of the substation will fail, meaning that the customers (Industrials, Commercials, and Residential) will not receive electric service.

It is good practice to implement mitigation measures which fully address the hazard that caused the damage to the facility. Mitigation measures for a damaged facility don't have to be limited to addressing only the specific components of the facility that were damaged when the failure of an undamaged interdependent component can lead to a cascading failure of the electrical transmission and distribution network.

Mitigation Approach:

The mitigation strategy for future similar damages at Rio Grande Estate Substation CH-2306 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, installing of a motor operator disconnect switch (MOD) for real time switching and control of the critical assets, loads and customers, strengthening the utility pole and foundation, 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 15 kV switchgear with six (6) breaker cubicles (4-1200A and 2-2000A breakers) and a provisional cubicle for the protection relays for the feeders, 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 Applicant is proposing as a mitigation measure, the consolidation of all substation equipment into an enclosed elevated integrated control building, the integration of a redundant SCADA and Telecommunication Systems, reduce the spacing of the chain-link fence post from 10ft to 8ft, the installation of a motor operator disconnect switch for quick load transfers, strength utility pole and foundation, and the 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 Mitigation Measures *(Supplement)*

- 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.

- **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.

- **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 **(10ea)** 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, **110LF**. Refer to Appendix J: Section IX of the PAPPG V3.1. **Note:** According to previous discussion with the Applicant, the additional 1ft concrete wall above ground level was not considered as a Mitigation measure.

  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 = 5 EA.
  - Pipe ground clamps, heavy duty, bronze, 1-1/4" to 2" diameter = 5 EA.
  - Pipe ground clamps, heavy duty, bronze, 2-1/2" to 3" diameter = 10 EA.
  - Crimp 2-way connectors, copper, or aluminum, 600 volt, #4 = 15 EA.
  - Ground wire, copper wire, bare stranded, #4 = 15 LF.
  - Ground wire, copper wire, bare stranded, 4/0 = 100 LF

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- **Motor Operator Disconnect (MOD):**

  The installation of a Motor Operator Disconnect equipment is a strategy for this substation which will minimize future damage by upgrading certain parts of the circuits served by Rio Grande Estates Substation through installing motor operated disconnect switching equipment that can transfer loads between circuits remotely as a strategy to minimize the number of customers that will be impacted by future damage events. A detailed analysis of these circuits, based on outage and field observations, has identified that the substation as a facility and its associated equipment and distribution circuits could be effectively hardened against future loss of service damage by implementing the addition of motor operated disconnect equipment.

  Making remote and remedial actions available with the added mitigation of MODs at the locations described in the SOW/MOR will allow for real time switching and control of the critical assets, loads and customers and greatly reduce the need for emergency protective measures and/or temporary facilities. Protecting this station from damages, either direct or because of loss of function, will have direct impacts to preserving system wide function and resiliency further addressing future damages because of prolonged outages to the Substation, equipment, and customers.

- **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 [134t(L) x 4.5ft(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). This mitigation measure will reduce facility safety issues, potential electrical system downtime, and improve resiliency.

- **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 [48KW, 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)*

- **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 15kV GIS (Gas Insulated Switchgear): Supply a 15kV GIS according to the engineering design in compliance with applicable DCD, codes & standards, specifications and EHP. It will be a compact low pressure SF6 (for insulation only not interruption) Gas Insulated (Single Bus), medium voltage, arc resistant, Switchgear (15KV, 40KA, (2) 2000A & (4) 1200A, 95KV BIL, consisting of 6 bays) with long term internal maintenance. GIS to be factory tested and certified in presence of LUMA representatives.

  - Prefabricated control enclosure, Stainless Steel, elevated with personnel platforms, 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.

- **Utility Concrete Pole:**

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

- Replace one (1) 55ft concrete H6 pole by one (1) 60ft galvanized steel S8 pole.
- Replace one (1) 55ft concrete H6 poles "self-support" concrete base {[(5'(L) x 5'(W) x 10'(D)) - (1.63'(L) x 1.63'(W) x 9'(D))] / 27} = 8.5 CY; by one (1) 60ft galvanized steel S8 pole "self-support" concrete base {[(5.5'(L) x 5.5'(W) x 12'(D)) - (2.5'(L) x 2.5'(W) x 11'(D))] / 27} = 11 CY. = [(11CY - 8.5CY) x 1ea] = 2.5CY.

Hazard Mitigation Proposal (HMP) Cost:

Total Net Hazard Mitigation Cost (Base Cost) =	$ 2,816,937.46
+ HM (Applicant A&E, Management & General Conditions) =	$ 1,768,433.49
Hazard Mitigation Total Cost =	**$ 4,585,370.95**

HMP Cost-Effectiveness Calculations:

Project BCR (Benefit Cost Ratio):

BCR = (Total Hazard Mitigation Benefits / Total Hazard Mitigation Project Cost)

BCR = ($33,688,684.00 / $5,218,186.00) = 6.46

The FEMA BCA tool is utilized in determining the benefit, which is the present value of the sum of the expected annual avoided damages of all the mitigation actions or damage inventories over the project useful life, and the dollar amount is compared with the total mitigation cost to obtain the benefit cost ratio (BCR). A project is considered cost-effective when the BCR is equal to or greater than (1).

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

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (Engineering And Design Services (Global A&E FAASt 335168)))	1.00	Lump Sum	($1,391,012.61)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	$0.00	Completed
9001 (9001 (Contract (FAASt 136271)))	1.00	Lump Sum	$8,489,256.37	Uncompleted

CRC Gross Cost	$7,098,243.76
Total 406 HMP Cost	$4,585,370.95
Total Insurance Reductions	$0.00
CRC Net Cost	$11,683,614.71
Federal Share (90.00%)	$10,515,253.24
Non-Federal Share (10.00%)	$1,168,361.47

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-11045(12955)	$11,683,614.71	90 %	$10,515,253.24	12/20/2022

Drawdown History

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

Obligation History

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

Subgrant Conditions

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

Insurance

Additional Information

10/21/2022

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 165268

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: $11,683,614.71 (CRC Gross Cost $7,098,243.76 + Mitigation Amount $4,585,370.95)

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) #425791:

FAASt Rio Grande Estate Substation CH-2306

Location Description: Rio Grande Estate Substation CH-2306

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: $11,683,614.71 (CRC Gross Amount $7,098,243.76 + Mitigation Amount $4,585,370.95)

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:

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 Rio Grande Estate Substation CH-2306 in the amount of $11,281,449.91 (CRC Gross Cost $7,098,243.76 – Uninsurable Items Amount $376,698.30 + Insurable Mitigation Amount $4,559,904.45). Please see "SP165268 – 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).

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").

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 $5,000.00. 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 Rio Grande Estate Substation CH-2306 in the amount of $11,281,449.91.	$11,281,449.91

406 Mitigation

There is no additional mitigation information on **FAASt Rio Grande Estate Substation CH-2306 (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.
- Resource Conservation and Recovery Act, aka Solid Waste Disposal Act (RCRA) - 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. The applicant is responsible to ensure damaged transformers are handled, managed and disposed of in accordance with all federal and state laws and requirements. Downed electrical equipment may contain toxic and hazardous materials, such as polychlorinated biphenyls (PCBs), and may spill these materials if a rupture occurs. Applicant is responsible for screening transformers that do or may contain PCBs and the area where any related spill occurred. The applicant is then responsible to handle, manage, dispose of, or recycle damaged equipment and contaminated soil as appropriate. Where possible, temporary measures should be implemented to prevent, treat, or contain further releases or mitigate the migration of PCBs into the environment. If damaged equipment or material storage containers must be stored temporarily, containers should be placed on hardened surface areas, such as a concrete or an asphalt for no more than 90 days. Excavated contaminated material should be disposed of in accordance with federal and state laws and requirements. 3. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage and dispose petroleum products, hazardous materials and toxic waste in accordance to the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize

receipt of federal funds.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt Rio Grande Estate Substation CH-2306 (Substation)**.

Final Reviews

Final Review

Reviewed By CHIRICO, JOSEPH A. **Reviewed On** 12/07/2022 12:10 PM AST

Review Comments

Re approved by FEMA for obligation- The applicant is responsible to comply with all requirements. COR3 and PREPA committed to resolving concern by 2022 12 9.

Recipient Review

Reviewed By Salgado, Gabriel **Reviewed On** 12/09/2022 5:04 PM AST

Review Comments

Recipient review completed. Project is ready for Applicant review.

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $11,683,614.71 for subaward number 11045 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas **Signed On** 12/09/2022