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

Feb 11, 2025 5:32 PM

IN RE:

IN RE: REVIEW OF THE PUERTO RICO ELECTRIC POWER AUTHORITY'S 10-YEAR INFRASTRUCTURE PLAN-DECEMBER 2020 CASE NO. NEPR-MI-2021-0002

SUBJECT: Motion Submitting Seven FEMA Approvals of Projects, Request for Confidential Treatment, and Supporting Memorandum of Law

MOTION SUBMITTING SEVEN FEMA APPROVALS OF PROJECTS, REQUEST FOR CONFIDENTIAL TREATMENT AND SUPPORTING MEMORANDUM OF LAW

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC, and LUMA Energy ServCo, LLC, (jointly referred

to as "LUMA"), through the undersigned legal counsel and, respectfully submits the following:

I. Submittal of Seven FEMA Approvals and Request for Confidentiality

1. On March 26, 2021, this Honorable Puerto Rico Energy Bureau ("Energy Bureau") issued a Resolution and Order in the instant proceeding, ordering, in pertinent part, that the Puerto Rico Electric Power Authority ("PREPA") submit to the Energy Bureau the specific transmission and distribution projects ("T&D Projects" or "Projects") to be funded with Federal Emergency Management Agency ("FEMA") funds or any other federal funds at least thirty (30) calendar days prior to submitting these Projects to the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3"), FEMA or any other federal agency ("March 26th Order"). It also directed PREPA to continue reporting to the Energy Bureau and FEMA, within the next five years, the progress of all ongoing efforts related to the approval of the submitted Projects not yet approved by the Energy Bureau. The Energy Bureau thereafter determined that this directive should be applied to PREPA and LUMA. *See* Resolution and Order of August 20, 2021.

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Received:

2. 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 that would 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.

3. On April 28, 2021, PREPA filed a *Motion in Compliance with the Resolution and Order entered on April 22, 2021*. PREPA submitted the Scopes of Work ("SOW") provided to COR3 and FEMA in compliance with the April 22nd Order. The SOWs submitted by LUMA included the "Taft - MC 1105[Substations]" T&D Project.

4. 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 "Taft - MC 1105[Substations]" T&D Project. 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.

5. 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 Scopes 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. Among the twenty-nine SOWs, LUMA submitted the "Distribution Pole and Conductor Replacement" SOW, which encompassed pole and conductor replacement projects throughout Puerto Rico.

6. On September 22, 2021, the Energy Bureau issued a Resolution and Order that determined that most of the SOWs for T&D projects submitted by LUMA were necessary to improve the system's reliability ("September 22nd Order"). Therefore, it approved most of the projects presented in the August 30th Motion, including the "Distribution Pole and Conductor Replacement" SOW. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the Project, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

7. On July 29, 2022, LUMA filed a *Motion Submitting Four Scopes of Work and Updated List of Projects and Request for Confidentiality and Supporting Memorandum Thirty-Eight Scopes of Work* whereby it submitted four (4) SOWs for the Energy Bureau's review and approval prior to submitting them to COR3 and FEMA ("July 29th Motion"). The SOWs submitted by LUMA included the "Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators" T&D Project.

8. On August 25, 2022, the Energy Bureau issued a Resolution and Order that determined that the SOWs for T&D projects submitted by LUMA were necessary to improve the system's reliability ("August 25th Order"). Therefore, it approved most of the projects presented in the July 29th Motion, including the "Transmission and Distribution Automation Program

Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators" T&D Project. The Energy Bureau also ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the Project, which shall contain the costs obligated for each project within ten (10) days of receiving such approval.

9. On November 7, 2023, LUMA filed the *Motion Submitting One Scope of Work, Request for Confidentiality and Supporting Memorandum of Law*, whereby LUMA submitted the "Transmission and Distribution Automation Program Installation of Three Phase Reclosers, Single Phase Reclosers and Fault Circuit Indicators and Feeder Headend Protection Devices" SOW for the Energy Bureau's approval ("November 7th Motion").

10. On November 27, 2023, the Energy Bureau issued a Resolution and Order whereby it approved the "Transmission and Distribution Automation Program Installation of Three Phase Reclosers, Single Phase Reclosers and Fault Circuit Indicators and Feeder Headend Protection Devices" SOW and ordered LUMA to submit a copy of the approval by COR3 and/or FEMA of the Project, which shall contain the costs obligated for each project within ten (10) days of receiving such approval ("November 27th Order").

11. As shown in Exhibit 1 of the Motion filed on January 24, 2022, *Motion Submitting Updates List of Transmission and Distribution Projects and Three Scopes of Work*, and most recently in Exhibit 5 of the Motion filed on July 31, 2024, *Motion Submitting Three Amended Scopes of Work, and One Scope of Work, an Updated Project List, and Request for Confidentiality and Supporting Memorandum of Law*, the "Distribution Pole and Conductor Replacement" SOW is divided into individual projects per region, which includes the "[Pole and Conductor Repair -Caguas Group 2 - Phase 2] (Distribution)" T&D Project. 12. Similarly, the "Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators" and "Transmission and Distribution Automation Program Installation of Three Phase Reclosers, Single Phase Reclosers and Fault Circuit Indicators and Feeder Headend Protection Devices" SOWs were divided into separate groups which include the "FAASt [Automation Program Group 14] (TL/Distribution)," "FAASt [Automation Program Group 12] (TL/Distribution)," "[Automation Program Group 19] (TL/Distribution)," "FAASt [Automation Program Group 20] (TL/Distribution)," and "[Automation Program Group 15] (TL/Distribution)" T&D Projects.

13. In compliance with the June 8th, September 22nd, August 25th, and November 27th Orders, LUMA hereby submits copies of the following approvals by FEMA issued on February 6, 2025: "Taft - MC 1105[Substations]," "[Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution)," "FAASt [Automation Program Group 14] (TL/Distribution)," "FAASt [Automation Program Group 12] (TL/Distribution)," "[Automation Program Group 19] (TL/Distribution)," "FAASt [Automation Program Group 20] (TL/Distribution)," and "[Automation Program Group 15] (TL/Distribution)" T&D Projects. *See* Exhibit 1¹ to this Motion. The document contains FEMA's approvals and includes the costs obligated for each Project.

14. LUMA is submitting herein a redacted public version of the FEMA approvals (**Exhibit 1**) protecting confidential information associated with Critical Energy Infrastructure Information ("CEII"). As explained in this Motion, portions of the FEMA approvals of the T&D Projects are protected from disclosure as CEII, *see, e.g.*, 6 U.S.C. §§ 671-674; 18 C.F.R. § 388.113

¹ Please note that **Exhibit 1** has digitalization and table format issues, which are found on the documents as issued by FEMA.

(2020), and pursuant to the Energy Bureau's Policy on Management of Confidential Information. *See* Energy Bureau's Policy on Management of Confidential Information, CEPR-MI-2016-0009, issued on August 31, 2016, as amended by Resolution dated September 20, 2016.

II. Memorandum of Law in Support of Request for Confidentiality

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

15. 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).

16. 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).

17. 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.

18. 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 \mathbb{P} 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 \mathbb{P} 6.

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

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).

20. 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

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

under seal of confidentiality.² In at least two Data Security and Physical Security proceedings,³ this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

22. 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 System Remediation Plan, table 2 at pages 7-9, Case No. NEPR-MI-2020-0019.

² See e.g., In re Review of LUMA's System Operation Principles, NEPR-MI-2021-0001 (Resolution and Order of May 3, 2021); In re Review of the Puerto Rico Power Authority's System Remediation Plan, NEPR-MI-2020-0019 (order of April 23, 2021); In re Review of LUMA's Initial Budgets, NEPR-MI-2021-0004 (order of April 21, 2021); In re Implementation of Puerto Rico Electric Power Authority Integrated Resource Plan and Modified Action Plan, NEPR MI 2020-0012 (Resolution of January 7, 2021, granting partial confidential designation of information submitted by PREPA as CEII); In re Optimization Proceeding of Minigrid Transmission and Distribution Investments, NEPR-MI 2020-0016 (where PREPA filed documents under seal of confidentiality invoking, among others, that a filing included confidential information and CEII); In re Review of the Puerto Rico Electric Power Authority Integrated Resource Plan, CEPR-AP-2018-0001 (Resolution and Order of July 3, 2019 granting confidential designated and request made by PREPA that included trade secrets and CEII. However, see Resolution and Order of February 12, 2021, reversing in part, grant of confidential designation).

³ In re Review of the Puerto Rico Electric Power Authority Physical Security Plan, NEPR-MI-2020-0018.

23. Similarly, the Energy Bureau has granted LUMA's requests for confidential treatment of portions of the FEMA approvals submitted for approval in the present case. Notably, the Energy Bureau has granted LUMA's request for confidential treatment of portions of FEMA Approvals of Projects submitted for consideration and authorization. Furthermore, this Energy Bureau designated portions of submitted FEMA Approvals of Projects as confidential CEII in its Resolution and Order of March 20, 2023; *see* Table 1 on pages 1-2.

24. 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.

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

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

Id.

26. Additionally, "[c]ritical electric infrastructure means a system or asset of the bulkpower 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.*

27. 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").⁴ 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).⁵

(ii) when disclosure of the information would be--

(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

(i) be made available pursuant to any State or local law requiring disclosure of information or records;

⁵ CII includes the following types of information:

⁴ 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

⁽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

 ⁽E) shall not, be provided to a State or local government or government agency; 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.

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

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

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

⁽B) the ability of any critical infrastructure or protected system to resist such interference, compromise, or incapacitation, including any planned or past assessment, projection, or estimate of the vulnerability of critical infrastructure or a protected system, including security testing, risk evaluation thereto, risk management planning, or risk audit; or

⁽C) any planned or past operational problem or solution regarding critical infrastructure or protected systems, including repair, recovery, construction, insurance, or continuity, to the extent it is related to such interference, compromise, or incapacitation.

C. Identification of Confidential Information

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

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	FAASt - [Taft - MC 1105] (Substations)	Pages 1, 2, 3, 4, 7, and 16	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025
Exhibit 1	FAASt [Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution)	Pages 1, 2, 9, and 16	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025
Exhibit 1	FAASt [Automation Program Group 14] (TL/Distribution)	Pages 1, 4, 5, 6, 7, 8, 9, and 14	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025
Exhibit 1	FAASt [Automation Program Group 12] (TL/Distribution)	Pages 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 22	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113;	February 11, 2025

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
			6 U.S.C. §§ 671- 674.	
Exhibit 1	FAASt [Automation Program Group 19] (TL/Distribution)	Pages 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 17	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025
Exhibit 1	FAASt [Automation Program Group 20] (TL/Distribution)	Pages 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 18	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025
Exhibit 1	FAASt [Automation Program Group 15] (TL/Distribution)	Pages 1, 3, 4, 5, and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671- 674.	February 11, 2025

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 counsel for PREPA Alexis Rivera, arivera@gmlex.net, and to Genera PR LLC, through its counsel of record, Jorge Fernández-Reboredo, jfr@sbgblaw.com and Alejandro López Rodríguez, alopez@sbgblaw.com.

In San Juan, Puerto Rico, on this 11th day of February 2025.



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

/s/ Julián R. Anglada Pagán Julián R. Anglada Pagán RUA NÚM. 22,142 julian.angladapagan@us.dlapiper.com

<u>Exhibit 1</u>

Sevene (7) FEMA Approvals

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	178258 P/W # 11721	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt - [Taft - MC 1105] (Substations)		00)
Project Size		Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Decidiation Date	3/20/2011
Completion Date		Incident Start Date	9/17/2017
Process Step	Obligated	Incident End Date	11/15/2017

Damage Description and Dimensions

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

Damage #449469; FAASt - Substation - Taft - MC 1105

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

General Facility Information:

- Facility Type: Power generation, transmission, and distribution facilities
- Facility: Substation Taft MC 1105
- Facility Description: Taft MC 1105 Substation is approximately 3,500 SQ. FT. The substation has one transmission line 7100 38/4.16 kV and five feeders. The capacity of the substation is 7.50/11.30 MVA.
- Approx. Year Built: 1980
- GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

449469 FAASt - Substation - Taft - MC 1105

Introduction

The purpose of this document is to submit for approval the Detailed Scope of Work (DSOW) to Central Office for Recovery, Reconstruction and Resiliency (COR3), and Federal Emergency Management Administration (FEMA) for the Taft 1105 Metalclad 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 and the eligible facility for the Taft 1105 Metalclad Substation.



LUMA submits this DSOW pursuant to the Transmission & Distribution – Operation & Maintenance (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.

Facility

The Taft 1105 Metalclad Substation experienced substantial damages due to Hurricane Maria in 2017. 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.

Name	Number	GPS	Voltage (kV)	Construction
Taft 1105 Metalclad	1105		38/4.16 kV	1968
Physical Address		Calle Sunny C	ourt Esq. Delbrey, Santuro	ce, PR

Project Scope of Work

Substation:

Proposed 428 Public Assistance Scope of Work:

- 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.
- Removal and disposal of the existing metal clad electrical equipment, steel structure, concrete dead end structure and poles, the existing metal clad switchgear, the existing transformer and oil circuit breakers, foundations, and all other associated equipment.
- Replace existing 7.5/11.3 MVA 38/4.16 kV transformer and foundation with a new 14 MVA 38/13.2-4.16 kV transformer with wall frame and new foundation with oil containment provisions including a sump pump, and interconnect with other components.
- Install a 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.
- Build new concrete pads for mobile substation connection structure, service station transformer, and remote metering.
- Remove and dispose of the existing perimeter fence and gates to install approximately 180-ft of perimeter fence embedded on the new retaining wall and install new gate.
 - Fence posts will be installed to a maximum depth of 36" below final grade. Typical excavation will be 1'-0" in diameter and a maximum of 42" in depth.
 - Fence foundations will be built around the perimeter to a maximum depth of 36" below final grade. Typical excavation will be 4'-0" center to center and a maximum of 42" in depth.
- Remove existing 13.2kV remote metering transformer and install a new 13.2kV remote metering transformer. Install new 13.2kV underground cable from new remote metering transformer to the control enclosure.
- Remove existing 15kV 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.

Staging Area:

• The staging area will be located inside the premises of the substation and will serve as an assembly point for all the materials to be installed.

Material Disposal:

• The type of debris that may be found in the process of demolition are batteries, transformers, concrete, metal scrap, domestic and construction waste. The debris will be separated and taken to an approved waste disposal facility.

Demolition & Salvage:

- Complete testing for containments or hazardous waste. Contaminated materials will be delivered to the approved waste disposal that complies with the applicable federal and state regulations.
- Debris will be generated as part of the proposed demolition/construction activities.
- 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.
- The debris will be separated and taken to an approved waste disposal facility.
- While completing all demolition activities, a water source will be onsite to mitigate dust.

- Waste bins will be emptied on a weekly basis.
- Project includes the disposal of one (1) single-phase transformer that have been identified associated to proposed activities.

Equipment expected to be used:

- Skid Steer, Excavator, Dump trucks, Manlifts, Boom Trucks 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine, Flatbed platform, portable generators, and gas small tools.
- All equipment used will comply with Tier 4 EPA Emission Standards, if available.

Fill, gravel, sand, etc.

- Fill, Gravel, and Sand materials will be obtained from an approved supplier.
- LUMA will provide actual suppliers documentation as a Condition of FEMA Record of Environmental Considerations.

Access roads:

• No new access road required. The entrance to the substation will be used as the only access road and is located at 'Sunny Court Street Santurce, PR'.

Hazardous Material:

- The possible hazardous materials that can be found in the substation are asbestos, PCBs, Lead, SF6 gas, oil from the transformer & breakers, chemicals used for construction fuel, sealants, and other chemical wastes typical of a construction site. These hazardous materials will be handled and disposed.
- LUMA will provide actual disposal locations and quantities as a Condition of FEMA Record of Environmental Considerations.
- These products and their residues will be stored in special covered areas for disposal by an authorized company and provided with temporary spill controls until collected. All containers and containing chemical/paints will be tightly sealed and stored when in use. Excess chemicals will not be discharged to the storm system, but properly disposed of, according to the manufacturer's instructions.
- Material amounts will be provided by a certified management contractor performing a site evaluation calculation for asbestos, lead paint, roof material.
- Prior to the start of any demolition activities, inspections for the presence of asbestos will be conducted by a trained and certified contractor.
- All asbestos waste found at the substation will be disposed of at an approved landfill. All asbestos waste generated will be bagged and transported in accordance with all applicable State and Federal regulations. There will be no exceptions.
- If the presence of asbestos is confirmed in the control building to be demolished, LUMA will follow all permits protocols required by law
 to properly dispose the hazardous materials from the premises. LUMA will provide evidence of the plan submission as a Condition of
 FEMA Record of Environmental Considerations.
- For transformers and pole disposal LUMA will provide actual disposal locations and quantities as a Condition of FEMA Record of Environmental Considerations.
- The removal of the transformer will require testing of the existing oil for PCB's levels, drain oil, and delivery to the approved waste disposal site as per Environmental Regulations.

Structure Age:

• The Taft Substation was constructed in 1968.

Ground disturbance:

- Activities less than 36" deep in previously disturbed area
 - Ground disturbance will occur for the following: fencing, ground-grid, new poles, conduits, foundations, or any other activity associated with the ground disturbance.
- Around 30-inches below the surface has been previously disturbed for construction of the existing substation ground grid.
 Activities greater than 36" deep (Potential New Disturbed Area)
 - Activities greater than 50 deep (Potential New Disturbed Area)
 - Cable Trenching and ground grid will occur within the substation up to 6ft deep.
 Excavation for new (1 ea.) 10' x 7' x 8' manhole (1 and 1 and
 - Excavation for new (1 ea.) 10' x 7' x 8' manhole (**Second Control**) for cable interconnection will occur outside the substation up to 12ft deep and shall be performed according to Department of Transportation and Public Works (DTOP) requirements.

Proposed 406 Hazard Mitigation Program Scope of Work:

- Install a new control enclosure which contains 15 kV switchgear with eight (8) breaker cubicles (5- 1200A and 2-2000A breakers) cubicles and a provisional cubicle for the protection relays for the feeders, telecom equipment, batteries, Substation Automation System using IEC 61850 technology, enhanced SCADA technology and all associated equipment.
- Install a new 48 kW backup generator that will act as a backup feed to the control enclosure and telecom equipment. The installation of the "Stand-by Emergency Power Generator" include the following associated activities;
 - Excavation and dewatering
 - Eight (8) in. thick slab on grade, include:

- Preparation of grade and formwork.
- Reinforcement placement.
- Concrete pouring.
- Finishing concrete slab.
- Removing of formwork and curing of concrete slab.
- Installation of electrical infrastructure (conduits, wires, cable trays, etc.)
- Installation of "Automatic transfer switch".
- Electrical power installation and interconnection work.
- Testing and commissioning
- Replace existing fencing and foundations. New fencing will reduce spacing between posts from 10ft to 8ft center on center.
 Fencing Ground grid connection will occur every 16-ft to a grounding loop located up to 3-ft inside substation. If no loop was found a grounding bar is to be installed or an excavation of 6" wide and a maximum 30-in. depth along the shortest necessary, distance needs to be performed to attach fence grounding to an existing grounding point within the substation.
- Refer to Appendix B and Appendix C for proposed general arrangement.

Distribution feeders:

Proposed 428 Public Assistance Scope of Work:

- Install (1 ea.) of new manhole 10' x 7' x 8' (
- Install new underground distribution feeders' cables from the GIS enclosure to the new distribution manhole and to all risers for the 15 kV circuit interconnections

Transmission Lines:

Proposed 428 Public Assistance Scope of Work:

- Install a new pole and re-route the 38 kV lines for the transmission lines interconnection..
- Install a new Motor Operator Disconnect (MOD) with auto-sectionalizing in a new steel structure for the 38 kV lines interconnection.

IT/Telecom System & SCADA:

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

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

Proposed 406 Hazard Mitigation Program Scope of Work (As identified in LPCE):

- Install redundant SCADA system and associated equipment inside the new Control Enclosure.
- Upgrade from existing Communications transmission tower, radio towers self-supporting, wind load 190 mph basic wind speed, 120' high".
- Install redundant Telecommunications system and associated equipment (Full 406 proposal as identified in LPCE)

Project Estimate

The estimated costs (Class 3 Accuracy, -20% to +30%) to complete the project are captured in the below table. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and may be subject to change. LUMA has identified risks and allowances for the mitigation of potential known risks.

COST ESTIMATE						
Cost Element	428	406 PF			PROJECT TOTAL	
PLANNING	\$ 711,170.08	\$	274,985.72	\$	986,155.80	
Permitting and Assessments	\$ 53,969.50	\$	20,868.20	\$	74,837.70	

Environmental Documentation & Management	\$ 54,107.31	\$	20,921.49	\$	75,028.80
Engineering Services & Design	\$ 603,093.27	\$	233,196.03	\$	836,289.30
MANAGEMENT	\$ 591,211.31	\$	228,601.67	\$	819,812.99
Project Management	\$ 175,809.73	\$	67,979.75	\$	243,789.48
Construction Management	\$ 286,201.88	\$	110,664.71	\$	396,866.59
Contracting, Procurement & Contract Administration	\$ 40,885.98	\$	15,809.24	\$	56,695.23
Projects Controls (Scheduling, Estimating, Support, Cost Control, Risk, Document Control & Reporting)	\$ 65,417.57	\$	25,294.79	\$	90,712.36
Legal	\$ 11,448.08	\$	4,426.59	\$	15,874.66
Finance & Accounting	\$ 11 448 08	\$	4,426.59	\$	15,874.66
	11, 110.00				
Taft Substation MC 1105	\$ 7,110,996.99	\$	2,749,585.07	\$	9,860,582.07
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment	\$ 7,110,996.99 \$ 6,815,800.20	\$ \$	2,749,585.07 2,635,442.33	\$	9,860,582.07 9,451,242.53
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment Construction & Access Road Clearance	\$ 7,110,996.99 \$ 6,815,800.20 \$ 81,771.97	\$ \$	2,749,585.07 2,635,442.33 31,618.49	\$ \$	9,860,582.07 9,451,242.53 113,390.45
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment Construction & Access Road Clearance Start Up/Commissioning	\$ 7,110,996.99 \$ 6,815,800.20 \$ 81,771.97 \$ 122,657.95	\$	2,749,585.07 2,635,442.33 31,618.49 47,427.73	\$ \$ \$	9,860,582.07 9,451,242.53 113,390.45 170,085.68
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment Construction & Access Road Clearance Start Up/Commissioning Transportation Expenses	\$ 7,110,996.99	\$ \$ \$ \$	2,749,585.07 2,635,442.33 31,618.49 47,427.73 15,809.24	\$ \$ \$ \$	9,860,582.07 9,451,242.53 113,390.45 170,085.68 56,695.23
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment Construction & Access Road Clearance Start Up/Commissioning Transportation Expenses Security (Field 24 hr)	\$ 49,880.90	\$ \$ \$ \$ \$ \$ \$ \$ \$	2,749,585.07 2,635,442.33 31,618.49 47,427.73 15,809.24 19,287.28	\$ \$ \$ \$ \$	9,860,582.07 9,451,242.53 113,390.45 170,085.68 56,695.23 69,168.18
Taft Substation MC 1105 Taft Substation MC 1105 material, labor and equipment Construction & Access Road Clearance Start Up/Commissioning Transportation Expenses Security (Field 24 hr) GENERAL CONDITIONS	\$ 7,110,996.99	\$ \$ \$ \$ \$ \$	2,749,585.07 2,635,442.33 31,618.49 47,427.73 15,809.24 19,287.28 370,474.09	\$ \$ \$ \$ \$ \$ \$	9,860,582.07 9,451,242.53 113,390.45 170,085.68 56,695.23 69,168.18 1,328,596.89

Municipal Construction Tax	\$ 408,859.83	\$	158,092.44	\$	566,952.27
CONTINGENCY	\$ 1,293,610.14		500,195.84	\$	1,793,805.98
Contingency	\$ 1,027,851.25	\$	397,435.75	\$	1,425,287.00
Escalation	\$ 245,315.90	\$	94,855.47	\$	340,171.36
Overhead	\$ 20,442.99	\$	7,904.62	\$	28,347.61
COST TOTALS	\$ 10,665,111.32	\$	4,123,842.40	\$	14,788,953.72
DEDUCTIONS	TOTAL INSURANCE PROCEEDS RECEIVED			\$	-
FAASt ALLOCATIONS	FAAST PROJECT #178258 TOTAL:			\$\$	13,486,572.32
	FAASt A&E # 335168 TOTAL				1,302,381.39

Project Cost Summary, 428 Version 0:

Work To Be Completed: \$10,665,111.32

A&E Deduction (Global A&E FAASt 335168): - \$1,302,381.39

Project Total Cost (FAASt Project #178258): \$9,362,729.93

Project Notes:

1. For detailed information, refer to documents/attachments labeled:

Scope of Work - 178258-DR4339PR-DSOW TAFT Rev_10 4.22.2024 - signed.pdf

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

APPENDIX B - SOW Overview

- APPENDIX C Engineering Designs (SLD), Proposed Site and Electrical Layout, Proposed Elevations Layout, Grading and Drainage Plan
- APPENDIX D Taft Substation Pictures

APPENDIX E - Existing Layout Plan

- APPENDIX F LPCE Estimate Breakdown, 178258 DR4339PR- Appendix F LPCE Estimate Breakdown 4.16.2024.xlsx
- APPENDIX G BCA Narrative
- APPENDIX H SCADA Telecom References

2. This project is part of Donor FAASt 136271 - MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.

3. Architectural and Engineering (A&E) costs are deducted given previously obligated PREPA FAASt Global A&E 335168 project.

406 HMP Scope

Project number: 178258

Damage #449469; FAASt - Substation - Taft - MC 1105

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

Location: San Juan, Puerto Rico

GPS Latitude/Longitude: Start:

Hazard Mitigation Narrative

During the incident period from September 17, 2017, to November 15, 2017, the Commonwealth of Puerto Rico experienced hurricaneforce 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 Taft MC 1105 Substation was built approximately in 1968 and is located in the Municipality of San Juan, Puerto Rico. The facility is a 38KV/4.16KV substation with a 7.5/11.3MVA transformer feeding a metal clad switchgear with one transmission line 38/4.16 kV and five distribution feeders. This substation is supported by a control building, electro-mechanical protection relays, SCADA, battery bank, battery charger, remote terminal unit, communications, remote switch operators, and remote transformer with protection & control panels. According to the information provided by the sub-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 from a total of 392. The Taft MC 1105 Substation was not one of the assets evaluated, where the cost estimate for PREPA's 392 substations was based on the developed cost projections of a subset of representative assets (81 substations). 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 Taft MC 1105 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 Taft Substation distribution circuits is accomplished by replacing the original control building and substation equipment with an enclosed control building structure and equipment where the existing AIS Equipment is currently exposed to driving rain, wind damage and vandalism. The proposed holistic mitigation approach for critical infrastructure consolidating all substation equipment into an enclosed building as a more cost-effective solution including the integration of a Substation Automation System using IEC 61850 technology, 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 Taft MC 1105 Substation 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, 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. 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 eight (8) breaker cubicles (5-1200A 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 sub-applicant is proposing as a mitigation measure, the consolidation of all substation equipment into an enclosed integrated control building, the integration of a redundant SCADA and Telecommunication Systems, reduce the spacing of the chain-link fence post from 10ft to 8ft, 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 sub-applicant proposed the following mitigation measures:

Mitigation Measures (Supplement)

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

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

IEC-61850 is implemented through a redundant TCP/IP network (PRP) with high data throughput (100 Megabits per second) providing services such as SCADA, Protection and Control (P&C), and remote access. This hardened and redundant TCP/IF 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.

2. Telecommunication System:

To mitigate the potential damage of losing the communication system for the substation equipment, the sub-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 sub-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 mitigation measures include the upgrade of the existing 50ft(H) telecommunications concrete pole for a new telecommunication tower, self-supporting radio towers, 190 mph wind load, base wind speed, 120ft(H) tower design.

3. 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 instal(**5ea**) 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, **50LF**. **Note:** According to previous discussion with the sub-applicant, the additional 1ft concrete wall above ground level is not applicable as it is included in 428 fence (codes & standards) and the new retaining wall.

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 = 3 EA.
- \cdot Pipe ground clamps, heavy duty, bronze, 1-1/4" to 2" diameter = 3 EA.
- · Pipe ground clamps, heavy duty, bronze, 2-1/2" to 3" diameter = 5 EA.
- · Crimp 2-way connectors, copper, or aluminum, 600 volt, #4 = 8 EA.
- Ground wire, copper wire, bare stranded, #4 = 8 LF.
- · Ground wire, copper wire, bare stranded, 4/0 = 100 LF

4. Backup Generator:

To avoid damage to the battery bank by the discharge drainage effect, the sub-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 sub-applicant must consider that the substation is located less than a mile (.24 miles) from the sea, so the exposed equipment and materials must be resilient to the environmental conditions.

1. Gas Insulated Substation (GIS) System:

In order to minimize the damages in a future event, the sub-applicant is proposing as a mitigation measure, the consolidation of all substation equipment into an enclosed integrated control building 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 & (5) 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.

Hazard Mitigation Proposal (HMP) Cost

Hazard Mitigation Total Cost =	\$ 4,123,842.40
+ HM (Applicant A&E, Management & General Conditions) =	<u>\$ 961,993.54</u>
Total Net Hazard Mitigation Cost (Base Cost) =	\$ 3,161,848.86

HMP Cost-Effectiveness Calculations

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described hereinis \$4,123,842.40 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. Th Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (v0 Engineering and Design Services, Deduction - PREPA FAASt Global A&E 335168)	1.00	Lump Sum	(\$1,302,381.39)	Uncompleted
9001 (v0 Contract, 428 - PREPA FAASt Donor Project 136271)	1.00	Lump Sum	\$10,665,111.32	Uncompleted

CRC Gross Cost	\$9,362,729.93
Total 406 HMP Cost	\$4,123,842.40
Total Insurance Reductions	\$0.00
CRC Net Cost	\$13,486,572.33
Federal Share (90,00%)	\$12 137 915 10
	φ12,107,010.10

Award Information

Version Information

Version	Eligibility	Current	Bundle	Project	Cost	Federal Share	Date Obligated
#	Status	Location	Number	Amount	Share	Obligated	
0	Pending	In Review		\$13,504,745.41	90%	\$0.00	

Drawdown History

EMMIE Drawdown Status As of Date	IE Drawdown Status As of Date IFMIS Obligation # Expenditure Number		Expended Date	Expended Amount

Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
0	2/6/2025	\$12,137,915.10	90%	Accepted	4339DRPRP00117211

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

9/4/2024

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

<u>5/13/2024</u>

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 178258

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: \$13,486,572.33 (CRC Gross Cost \$9,362,729.93 + Mitigation Amount \$4,123,842.40)

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: <u>Willis Towers Watson</u> (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-CP-000318674-0, 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) #449469:

FAASt - Substation - Taft - MC 1105

Location Description: Substation - Taft - MC 1105

GPS Coordinates:

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: \$13,486,572.33 (CRC Gross Cost \$9,362,729.93 + Mitigation Amount \$4,123,842.40)

-

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.

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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 - Substation - Taft - MC 1105 in the amount of \$11,618,195.68 (CRC Gross Cost \$9,362,729.93 – Uninsurable Items \$1,046,817.24 – Building Amount \$402,887.84 + Equipment Insurable Mitigation Amount \$3,705,170.83). Please see "SP178258 – Cost Estimate – Insurance 1" file.

An Obtain & Maintain Requirement is being required for Building, for the peril of Wind (all wind associated losses including "wind driven rain" for the FAASt - Substation - Taft - MC 1105 in the amount of \$757,611.84 (Building Amount \$402,887.84 + Insurable Building Mitigation Amount \$354,724.00). Please see "SP178258 – Cost Estimate – Insurance 1" file.

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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 caseby-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).

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

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

. . .

FEMA Policy 206-086-1

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

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

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

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

...

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

Obtain and Maintain Requirements:

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

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

(b)

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

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

(c) The Regional Administrator shall notify the recipient of the type and amount of insurance required. The recipient may request that the State Insurance Commissioner review the type and extent of insurance required to protect against future loss to a disaster-damaged facility, the Regional Administrator shall not require greater types and extent of insurance than are certified as reasonable by the State Insurance Commissioner.

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

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

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

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

FEMA Policy 206-086-1

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

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

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

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

b. When the scope of work is complete.

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

An applicant should notify FEMA—in writing through the recipient—of changes to their insurance which impact their ability to satisfy the insurance requirement after it provides proof of insurance to FEMA. This includes changes related to self-insurance. If an applicant fails to do this, FEMA may deobligate 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	Building	An Obtain & Maintain Requirement is being required for Building, for the peril of Wind (all wind associated losses including "wind driven rain" for the FAASt - Substation - Taft - MC 1105 in the amount of \$757,611.84.	\$757,611.84
Wind	Equipment	An Obtain & Maintain Requirement is being required for Equipment, for the peril of Wind (all wind associated losses including "wind driven rain" for the FAASt - Substation - Taft - MC 1105 in the amount of \$11,618,195.68.	\$11,618,195.68

406 Mitigation

There is no additional mitigation information on FAASt - [Taft - MC 1105] (Substations).

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.
- 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.

- Applicant is required to obtain a Source of Emission Permit (PFE) from Puerto Rico Department of Natural and Environmental Resources (PR DNER) or General Permit for Emergency Power Generators (PG-GE) from the PR Office of Permits Management (OGPe) prior to construction and operation of the proposed source of emissions. Documentation of DNER and other state, local or federal guideline compliance, may be required as a condition of closeout.
- 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
- a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project- Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at closeout.
- 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 - [Taft - MC 1105]** (Substations).

Final Reviews

Final Review

Reviewed By Amaro, Luis N.

Reviewed On 12/11/2024 7:41 AM PST

Review Comments

LNA 12/11/24. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/19/2024 9:31 AM PST

Review Comments

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

Project Signatures

Signed By Miller, Thomas

Signed On 12/19/2024
Department of Homeland Security Federal Emergency Management Agency

General Info

Project#	738971 P/W# 11812	Project Type	Specialized	
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-	
Project Title	FAASt [Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution)	Event	4339DR-PR (4339DR)	
Project Size	Large	Declaration Date	9/20/2017	
Activity	9/20/2027	Incident Start Date	9/17/2017	
Completion Date		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 #661603; FAASt [Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2]

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: FAASt [Distribution Pole and Conductor Repair Caguas Group 2 Phase 2] (SUB. 9601-01, SUB. 9601-02, SUB. 9602-04, SUB. 9901-02, SUB. 9902-01, SUB. 9902-02
- Facility Description: The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizes), and any other associated components.
- Approx. Year Built: 1980
- Start GPS Latitude/Longitude:
- End GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

661603 FAASt [Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2]

INTRODUCTION

The purpose of this document is to submit for approval the detailed Scope of Work ("SOW") to COR3 and FEMA for the Distribution Pole and Conductor Repair – Caguas Group 2 – Phase 2 Project under DR-4339- PR Public Assistance. The document provides a description of the



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

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

FACILITIES

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

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
BARRANQUITAS, SUB. 9601	9601-01	129			1 Phase	8.32	More than 20 Years
BARRANQUITAS, SUB. 9601	9601-02	120			1 Phase	8.32	More than 20 Years
BARRANQUITAS, SUB. 9602	9602-04	163			1 Phase	8.32	More than 20 Years
DIVISORIA, SUB. 9901	9901-02	105			1 Phase	4.16	More than 20 Years
OROCOVIS, SUB. 9902	9902-01	73			1 Phase	8.32	More than 20 Years
OROCOVIS, SUB. 9902	9902-02	45			1 Phase	8.32	More than 20 Years

PROJECT SCOPE OF WORK

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

Proposed 428 Public Assistance Scope of Work:

Feeder 9601-01 Scope:

Remove		Quantity	Install		Quantity
35' WC	DOD POLE	33		45FT H4 CONCRETE	33
35' WC	OOD POLE	1		45FT H6 CONCRETE	1
35' WC	OOD POLE	2		45FT S3 GALV STEEL	2

40' WOOD POLE	75	45FT H4 CONCRETE		75
40' WOOD POLE	5	45FT H6 CONCRETE	5	
40' WOOD POLE	2	45FT S3 GALV STEEL	2	
45' WOOD POLE	8	45FT H4 CONCRETE	8	
50' WOOD POLE	1	45FT H4 CONCRETE	1	
35' WOOD POLE	1	NFO	1	
40' WOOD POLE	1	45FT H6 CONCRETE	1	

Feeder 9601-02 Scope:

Remove	Quantity	Install	Quantity
30' WOOD POLE	1	45FT H6 CONCRETE	1
35' WOOD POLE	23	45FT H4 CONCRETE	23
35' WOOD POLE	26	45FT H6 CONCRETE	26
40' WOOD POLE	26	45FT H4 CONCRETE	26
40' WOOD POLE	38	45FT H6 CONCRETE	38
45' WOOD POLE	3	45FT H6 CONCRETE	3
35' WOOD POLE	1	50FT H6 CONCRETE	1
40' WOOD POLE	2	50FT H6 CONCRETE	2

Feeder 9602-04 Scope:

Remove	Quantity	Install	Quantity
30' WOOD POLE	1	45FT H4 CONCRETE	1
35' WOOD POLE	3	45FT H3 CONCRETE	3
35' WOOD POLE	34	45FT H4 CONCRETE	34

35' WOOD POLE	2	45FT S3 GALV STEEL	2
35' CONCRETE POLE	1	45FT H3 CONCRETE	1
35' CONCRETE POLE	1	45FT H4 CONCRETE	1
35' CONCRETE POLE	1	45FT S3 GALV STEEL	1
40' WOOD POLE	17	45FT H3 CONCRETE	17
40' WOOD POLE	77	45FT H4 CONCRETE	77
40' WOOD POLE	6	45FT S3 GALV STEEL	6
40' WOOD POLE	1	50FT H4 CONCRETE	1
45' WOOD POLE	5	45FT H4 CONCRETE	5
35' WOOD POLE	1	45FT H4 CONCRETE	1
35' WOOD POLE	1	50FT H4 CONCRETE	1
35' WOOD POLE	2	50FT H6 CONCRETE	2
40' WOOD POLE	2	45FT H4 CONCRETE	2
40' WOOD POLE	5	50FT H4 CONCRETE	5
40' WOOD POLE	3	50FT H6 CONCRETE	3

Feeder 9901-02 Scope:

Remove	Quantity	Install	Quantity
35' WOOD POLE	4	45FT H4 CONCRETE	4
35' WOOD POLE	2	45FT S3 GALV STEEL	2
40' WOOD POLE	1	45FT H3 CONCRETE	1
40' WOOD POLE	85	45FT H4 CONCRETE	85
40' WOOD POLE	3	45FT S3 GALV STEEL	3

40' WOOD POLE	1	50FT H4 CONCRETE	1
40' CONCRETE POLE	1	45FT S3 GALV STEEL	1
45' WOOD POLE	4	45FT H4 CONCRETE	4

35' WOOD POLE	1	50FT H4 CONCRETE	1
40' WOOD POLE	1	50FT H4 CONCRETE	1
50' WOOD POLE	1	50FT H4 CONCRETE	1
50' WOOD POLE	1	50FT H6 CONCRETE	1

Feeder 9902-01 Scope:

Remove	Quantity	Install	Quantity
35' WOOD POLE	15	45FT H4 CONCRETE	15
35' WOOD POLE	2	45FT H6 CONCRETE	2
40' WOOD POLE	33	45FT H4 CONCRETE	33
40' WOOD POLE	2	45FT H6 CONCRETE	2
40' WOOD POLE	3	45FT S3 GALV STEEL	3
40' CONCRETE POLE	7	45FT H4 CONCRETE	7
45' WOOD POLE	3	45FT H4 CONCRETE	3
45' WOOD POLE	1	45FT S3 GALV STEEL	1
45' STEEL POLE	1	45FT H6 CONCRETE	1
35' WOOD POLE	1	50FT H6 CONCRETE	1
40' WOOD POLE	3	50FT H4 CONCRETE	3
40' WOOD POLE	2	50FT H6 CONCRETE	2

Remove	Quantity	Install	Quantity
30' WOOD POLE	1	45FT H4 CONCRETE	1
35' WOOD POLE	2	45FT H4 CONCRETE	2
35' WOOD POLE	6	45FT H6 CONCRETE	6
40' WOOD POLE	14	45FT H4 CONCRETE	14
40' WOOD POLE	15	45FT H6 CONCRETE	15
40' CONCRETE POLE	2	45FT H4 CONCRETE	2
40' CONCRETE POLE	2	45FT H6 CONCRETE	2
45' WOOD POLE	2	45FT H6 CONCRETE	2
40' WOOD POLE	1	45FT H6 CONCRETE	1

Detail Descriptions for Planned Field Work:

Pole Replacement

• Remove existing poles, including hardware and install new poles, including hardware, in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

• All pole installations are to replace existing pole locations; no new locations are included in this scope of work. Refer to Appendix J- EHP Checklist, column C (Soil area and depth impact) for the depths of the poles to be installed.

• Remove the existing foundations as specified in Appendix J- EHP Checklist column I (Concrete Foundation) and replace them with a new concrete foundation bases as per Appendix D-

Distribution Construction Standards (Concrete Base Standard). The maximum auger width used is 42" and the maximum depth drilled is 15ft.

• New guy wire/ anchors are to be installed in compliance with *Appendix D- Distribution Construction Standards* within 3ft from the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.

• Brushing will be required in locations to gain access to the pole for replacement. Brushing refers to the removal and clearing of vegetation solely to the extent that it allows crews to conduct work. The brushing of vegetation will be limited to a 15 ft radius surrounding the surface of the pole but not to exceed the width of the right-of-way for the exclusive purpose of gaining access to the pole to conduct repairs. Please see Appendix J- EHP Checklist column H (Brushing/Clearing), Refer to Appendix B- Maps and Pictures for pictures of the vegetation.

- All work for this program will be performed within the current electrical right-of-way.
- This scope of work will not affect water or sewer utility services. Material Disposal

• PCBs, oil from the transformer and breakers, sealants, and other chemical wastes typical of a construction site are considered hazardous waste and will be disposed of by the contractor in approved facilities as per applicable local regulations. Refer to Appendix C - Waste Management Plan.

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

• Transformers will be contained and returned to LUMA in compliance with applicable local regulations. The removal of the transformer will require testing of the existing oil for PCB levels, drain oil, and delivery to the approved waste disposal site as per Environmental

Regulations. Refer to Appendix C- Waste Management Plan.

Access Roads

• Poles are in close proximity to the roads and are site accessible. The construction of access roads is not required for this scope of work. Refer to Appendix J- EHP Checklist in column G "Site Accessible".

Staging Area

•All materials are stored and dispatched from the Caguas Regional Warehouse. Refer to

Appendix L- Warehouse locations. No additional or temporary staging areas are required.

Fill, gravel, sand, etc .:

• Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in

Appendix A- Approved Supplier List.

List of Equipment to be used:

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

Specific List of Permits Required:

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

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.

COST ESTIMATE						
Cost Bement	428	406	Total			
PLANNING	\$1,163,468	\$23,744	\$1,187,213			
Permitting and Assessments	\$55,403	\$1,131	\$56,534			
(428 - FAASt A&E 335168)						
Environmental Documentation & Management	\$123,118	\$2,513	\$125,631			
(428 - FAASt A&E 335168)						
Engineering Services & Design (428 - FAASt A&E 335168)	\$984,947	\$20,101	\$1,005,048			
MANAGEMENT	\$480,162	\$9,799	\$489,961			
Project Management	\$98,495	\$2,010	\$100,505			
(428 - FAASt A&E 335168)						
Construction Management	\$184,678	\$3,769	\$188,446			
(428 - FAASt A&E 335168)						

Contracting, Procurement & Contract Administration	\$98,495	\$2,010	\$100,505
(428 - FAASt A&E 335168)			
Projects Controls (Scheduling, Estimating, Support, Cost Control, Risk, Document	\$73,871	\$1,508	\$75,379
Control & Reporting)			
(120 EAAS ARE 225460)			
(420 - FAASI A&E 333100)			
Legal (428 - FAASt A&E 335168)	\$12,312	\$251	\$12,563
		•	
Finance & Accounting	\$12,312	\$251	\$12,563
(428 - FAASt A&E 335168)			
Caguas Group 2 - Phase 2 ID: 14F018490000	\$12,252,808	\$310,288	\$12,563,096
	\$10,050,000	* 010.000	\$10 500 000
materiai, labor, and equipment	\$12,252,808	\$310,288	\$12,563,096
CONTINGENCY	\$1,631,318	\$33,292	\$1,664,610
Contingency	\$1,231,183	\$25,126	\$1,256,310
Escalation	\$369.355	\$7.538	\$376.893
		÷.,	
Overhead	\$30,780	\$628	\$31,408
COST TOTALS	\$15,527,756	\$377,124	\$15,904,880
DEDUCTIONS			
(TOTAL INSURANCE PROCEEDS RECEIVED)			
FAASt PROJECT # 738971 TOTAL	\$13,884,126	\$377,124	\$14,261,250
ΓΔΔSt Δ&F# 335168 ΤΟΤΔΙ	\$1 643 630		
TANG AGE 500100 TOTAL	φ1,0 1 0,000		

PA 428 Work to Be Completed (WTBC): \$15,527,756

PA 428 A&E Deduction (Global A&E FAASt 335168) -\$1,643,630

PA 428 Project Total Cost: \$13,884,126

Project Notes:

1. Refer to the detailed SOW provided in document 738971-DR4339PR-Detailed SOW Caguas Group 2 - Phase 2 Rev1.pdf

2. Please refer to Appendix H for Cost Estimate Details: "7738971-DR4339PR-Appendix H-Detail Cost Estimate - Caguas Group 2 - Phase 2 Rev1.xlsx".

3. For reference documents Appendix A through L, see the file labeled:

APPENDIX A - Approved Supplier List

APPENDIX B - Maps and Pictures

APPENDIX C - Waste Management Plan APPENDIX D - Distribution Construction Standards APPENDIX E - LUMA Wildlife Avian and Historical Protection Procedure #335

APPENDIX F - Consent to Federal Funding Letter - FEMA/COR3 APPENDIX G - Structure Coordinates APPENDIX H - Detail Cost Estimate APPENDIX I - Cost-Effective Hazard Mitigation Measures APPENDIX J - EHP Checklist APPENDIX K - EHP Maps APPENDIX L - Warehouse Locations

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

406 HMP Scope

Project number: [738971] FAASt Distribution Pole and Conductor Repair Caguas Group 2 – Phase 2 (Distribution)

Damage # DI #661603; FAASt Distribution Pole and Conductor Repair – Caguas Group 2

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



Hazard Mitigation Narrative

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

Project # Project # 738971 FAASt Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2.

The Distribution Pole and Conductor Repair – Caguas Group 2 – Phase 2 consists of 6 interconnected and inter-functional distribution feeders (sites) establish the electrical distribution system as follow: Barranquitas Sub 9601, Feeder 9601-01, Barranquitas Sub 9601, Feeder 9601-02, Barranquitas Sub 9602, Feeder 9602-04, Divisoria Sub 9901, Feeder 9901-02, Orocovis Sub 9902, Feeder 9902-01, Orocovis Sub 9902, Feeder 9902-02.

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.

Cost Summary:

The Hazard Mitigation Proposal is divided in 1ea Sub-Project: DI #661603; FAASt Distribution Pole and Conductor Repair – Caguas Group 2. The total HMP Cost is the HM Net Cost (\$310,288.00) + Applicant A&E, Management & General Conditions (\$66,835.67) = \$377,123.67

Hazard Mitigation Proposal (HMP) Scope of Work:

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

Feeder 9601-01 Scope: 129 EA Pole

- Replace Thirty-Three (33) 45Ft H4 Concrete Poles by Thirty-Three (33) 45Ft S5.7 Galvanized Steel Poles
 - Replace One (1) 45Ft H6 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Two (2) 45Ft S3 Galvanized Steel Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace Seventy-Five (75) 45Ft H4 Concrete Poles by Seventy-Five (75) 45Ft S5.7 Galvanized Steel Poles
- Replace Five (5) 45Ft H6 Concrete Poles by Five (5) 45Ft S5.7 Galvanized Steel Poles.
 No 406 Hazard Mitigation work identified to replace (5) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Two (2) 45Ft S3 Galvanized Steel Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace Eight (8) 45Ft H4 Concrete Poles by Eight (8) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 45Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace One (1) 45Ft H6 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace One (1) 35 ft Wood Pole by One (1) 50ft S8 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 35 ft Wood Pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).

Feeder 9601-02 Scope: 120 EA Poles

- Replace One (1) 45Ft H6 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Twenty-Three (23) 45Ft H4 Concrete Poles by Twenty-Three (23) 45Ft S5.7 Galvanized Steel Poles
- Replace Twenty-Six (26) 45Ft H6 Concrete Poles by Twenty-Six (26) 45Ft S5.7 Galvanized Steel Poles.
 No 406 Hazard Mitigation work identified to replace (26) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Twenty-Six (26) 45Ft H4 Concrete Poles by Twenty-Six (26) 45Ft S5.7 Galvanized Steel Poles
- Replace Thirty-Eight (38) 45Ft H6 Concrete Poles by Thirty-Eight (38) 45Ft S5.7 Galvanized Steel Poles.
 No 406 Hazard Mitigation work identified to replace (38) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Three (3) 45Ft H6 Concrete Poles by Three (3) 45Ft S5.7 Galvanized Steel Poles.
 No 406 Hazard Mitigation work identified to replace (3) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace One (1) 50Ft H6 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace Two (2) 50Ft H6 Concrete Poles by Two (2) 50Ft S8 Galvanized Steel Poles

Feeder 9602-04 Scope: 163 EA Poles

- Replace One (1) 45Ft H4 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace Three (3) 45Ft H3 Concrete Poles by Three (3) 45Ft S5.7 Galvanized Steel Poles
- Replace Thirty-Four (34) 45Ft H4 Concrete Poles by Thirty-Four (34) 45Ft S5.7 Galvanized Steel Poles
- Replace Two (2) 45Ft S3 Galvanized Steel Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 45Ft H3 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace One (1) 45Ft H4 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace One (1) 45Ft S3 Galvanized Steel Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace Seventeen (17) 45Ft H3 Concrete Poles by Seventeen (17) 45Ft S5.7 Galvanized Steel Poles
- Replace Seventy-Seven (77) 45Ft H4 Concrete Poles by Seventy-Seven (77) 45Ft S5.7 Galvanized Steel Poles
- Replace Six (6) 45Ft S3 Galvanized Steel Poles by Six (6) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 50' H4 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 50' H4 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Five (5) 45Ft H4 Concrete Poles by Five (5) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 45Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace Two (2) 50Ft H6 Concrete Poles by Two (2) 50Ft S8 Galvanized Steel Poles
- Replace Two (2) 45Ft H4 Concrete Poles by Two (2) 50Ft S8 Galvanized Steel Poles
- Replace Five (5) 50Ft H4 Concrete Poles by Five (5) 50Ft S8 Galvanized Steel Poles
- Replace Three (3) 50Ft H6 Concrete Poles by Three (3) 50Ft S8 Galvanized Steel Poles

Feeder Scope: 9901-02 105 EA Poles

- Replace Four (4) 45Ft H4 Concrete Poles by Four (4) 45Ft S5.7 Galvanized Steel Poles
- Replace Two (2) 45Ft S3 Galvanized Steel Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 45Ft H3 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace Eighty-Five (85) 45Ft H4 Concrete Poles by Eighty-Five (85) 45Ft S5.7 Galvanized Steel Poles
- Replace Three (3) 45Ft S3 Galvanized Steel Poles by Three (3) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole.
 No 406 Hazard Mitigation work identified to replace (1) 50' H4 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 50' H4 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace One (1) 45Ft S3 Galvanized Steel Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace Four (4) 45Ft H4 Concrete Poles by Four (4) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace One (1) 50Ft H4 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace One (1) 50Ft H6 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole

Feeder 9902-01 Scope: 73 EA Poles

- Replace Fifteen (15) 45Ft H4 Concrete Poles by Fifteen (15) 45Ft S5.7 Galvanized Steel Poles
- Replace Two (2) 45Ft H6 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles

 No 406 Hazard Mitigation work identified to replace (2) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Thirty-Three (33) 45Ft H4 Concrete Poles by Thirty-Three (33) 45Ft S5.7 Galvanized Steel Poles
- Replace Two (2) 45Ft H6 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles

 No 406 Hazard Mitigation work identified to replace (2) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Three (3) 45Ft S3 Galvanized Steel Poles by Three (3) 45Ft S5.7 Galvanized Steel Poles
- Replace Seven (7) 45Ft H4 Concrete Poles by Seven (7) 45Ft S5.7 Galvanized Steel Poles
- Replace Three (3) 45Ft H4 Concrete Poles by Three (3) 45Ft S5.7 Galvanized Steel Poles
- Replace One (1) 45Ft S3 Galvanized Steel Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace One (1) 45Ft H6 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole

 No 406 Hazard Mitigation work identified to replace (1) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace One (1) 50Ft H6 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole
- Replace Three (3) 50Ft H4 Concrete Poles by Three (3) 50Ft S8 Galvanized Steel Poles
- Replace Two (2) 50Ft H6 Concrete Poles by Two (2) 50Ft S8 Galvanized Steel Poles

Feeder 9902-02 Scope: 45 EA Poles

- Replace One (1) 45Ft H4 Concrete Pole by One (1) 45Ft S5.7 Galvanized Steel Pole
- Replace Two (2) 45Ft H4 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace Six (6) 45Ft H6 Concrete Poles by Six (6) 45Ft S5.7 Galvanized Steel Poles.
- No 406 Hazard Mitigation work identified to replace (6) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Fourteen (14) 45Ft H4 Concrete Poles by Fourteen (14) 45Ft S5.7 Galvanized Steel Poles
- Replace Fifteen (15) 45Ft H6 Concrete Poles by Fifteen (15) 45Ft S5.7 Galvanized Steel Poles

 No 406 Hazard Mitigation work identified to replace (15) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Two (2) 45Ft H4 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles
- Replace Two (2) 45Ft H6 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles

 No 406 Hazard Mitigation work identified to replace (2) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace Two (2) 45Ft H6 Concrete Poles by Two (2) 45Ft S5.7 Galvanized Steel Poles

 No 406 Hazard Mitigation work identified to replace (2) 45' H6 concrete pole. Note: The 45' galvanized steel S5.7 pole cost is less than the 45' H6 concrete pole. In these cases, the Mitigation is accomplished by the 428 PA method of repair (MOR).
- Replace One (1) 45Ft H6 Concrete Pole by One (1) 50Ft S8 Galvanized Steel Pole

(III) Hazard Mitigation Proposal (HMP) Cost

Total Net Hazard Mitigation Cost (Base Cost) =	\$ 310,288.00
+ HM (Applicant A&E, Management & General Conditions) =	\$ 66,835.67
Hazard Mitigation Total Cost =	\$ 377,123.67

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HMP Cost-Effectiveness Calculations:

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

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

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

The cost of the Hazard Mitigation Proposal (HMP) described herein is \$377,123.67 (Hazard Mitigation Total Cost). The cost of this HMP combined will all other proposals (both PA and HMGP) does not exceed the maximum potential benefit and is therefore deemed cost effective per FEMA Public Assistance Program and Policy Guide (PAPPG) V3.1 April 2018, Chapter 2, VII., Section C, BCA Rule. This Hazard Mitigation Proposal meets eligible repair and restoration cost-effective requirements.

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

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (V0 Engineering And Design Services (Deduction - FAASt A&E Global Project #335168))	1.00	Lump Sum	(\$1,643,630.00)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (V0 Contract (PREPA FAASt Project# 136271))	1.00	Lump Sum	\$15,527,756.00	Uncompleted

\$13,884,126.00
\$377,123.67
\$0.00
\$14,261,249.67
\$14,261,249.67 \$12,835,124.71

Award Information

Version Information

Version	Eligibility	Current	Bundle	Project	Cost	Federal Share	Date
#	Status	Location	Number	Amount	Share	Obligated	Obligated
0	Pending	In Review		\$13,884,126.00	90%	\$0.00	

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 #
0	2/6/2025	\$12,835,124.71	90%	Accepted	4339DRPRP00118121

Subgrant Conditions

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

Insurance

Additional Information

<u>5/23/2024</u>

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 738971

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: \$14,261,249.67 (CRC Gross Cost \$13,884,126.00 + Mitigation Amount \$377,123.67)

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: <u>Willis Towers Watson</u> (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

<u>Multinational Insurance Company</u> (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) #661603:

FAASt [Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2]

Location: FAASt [Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2] (SUB. 9601-01, SUB. 9601-02, SUB. 9602-04, SUB. 9901-02, SUB. 9902-01, SUB. 9902-02

GPS Coordinates: Start 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: \$14,261,249.67 (CRC Gross Cost \$13,884,126.00 + Mitigation Amount \$377,123.67)

-

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt [Distribution Pole and Conductor Repair - Caguas Group 2 - Phase 2] because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

...

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution).

406 Mitigation

There is no additional mitigation information on FAASt [Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution).

Environmental Historical Preservation

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

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Yes
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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.
- a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out
- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures
- Endangered Species Act (ESA) Conditions for the Puerto Rican Boa (Chilabothrus inornatus) for feeders (9601-01, 9601-02, 9602-04, 9901-02, 9902-01 and, 9902-02) 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or

illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project. 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harm�s way as the result of the habitat disturbance (see #6). 4. For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6).

- 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior. 6. If any PR or VI boa (dead or alive) is found within the Action Area and on harms way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested) at least 1km from the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project starts and sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process. 7. Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. (a) Any heavy machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the heavy machinery. If a PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. (b): The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. (c); In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. (d); If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. (e); Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted.
- Endangered Species Act The below conservation measures apply to the following bird species: Puerto Rican parrot for fedders 9601-01, 9602-04, 9901-02, 9902-01 and, 9902-02 ;, Puerto Rican plain pigeopigeon for feeder 9601-02 (Feeder 1)n;, Puerto Rican broad -winged hawk for feeders (9601-01, 9602-04, 9901-02, 9902-01 and, 9902-02 feeders) and Puerto Rican sharp-shinned hawk .(for feeders (9901-02 and 9902-01)). 8. During breeding seasons (see below), nest surveys shall be conducted if a project occurs in a species' range. Nest searches must be conducted by qualified personnel with the appropriate DNER permits prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until fledglings successfully leave the nest permanently. Outside the nesting season, if a nest is encountered, work shall not interfere with the species until they have left the site. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 200-meter buffer to the closest nest. This avoidance strategy must be kept until juvenile birds fledge the nest and are permanently gone. Nesting season: Puerto Rican parrot (Amazona vittata): February to June; Puerto Rican plain pigeon (Patagioenas inornata wetmorei [Columba inornata]): April-September; Puerto Rican broadwinged hawk (Buteo platypterus): December-June and Puerto Rican sharpshinned hawk (Accipiter striatus venator): December-June. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. Data should also include a photo of the nest and eggs, relocation site GPS coordinates, and the time and date of the relocation. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office, Marelisa Rivera - Deputy Field Supervisor, 787-851-7297 extension 206, 787-510-5207, marelisa rivera@fws.gov.
- Endangered Species Act . The following measures apply to the Puerto Rican harlequin butterfly through its current range for feeders 9901-02 and, 9902-01.: a. The contractor must inform all personnel about the potential presence of the Puerto Rican harlequin butterfly and its host plant, prickly bush (Oplonia spinosa), in the project areas. A pre-work meeting should inform all project personnel about the need to avoid harming this butterfly and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. Educational material (e.g., posters, flyers, or signs with photos or illustrations of all the life stages

of the Puerto Rican harlequin butterfly (i.e., eggs, caterpillar, chrysalids, and adult, and its host plant) should be prepared and available to all personnel for reference. b. Before starting any project activity, including removal of vegetation and earth movement, the contractor must clearly delineate the boundaries of the working area in the field to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the Puerto Rican harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the Puerto Rican harlequin butterfly can be observed year-round in all life stages; thus, oviposition (egg-laying) may occur at any time during the year. c. If the prickly bush is present on the project site, try to avoid cutting the plant, even if no eggs, caterpillars, or chrysalids are present. d. If there is no prickly bush within the project area, but the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species. e. Adult butterflies are often observed flying near the host plant as part of their mating behavior and for laying eggs. Project-related activities must stop if the prickle bush is found in the project area and the Puerto Rican harlequin butterfly is observed flying in that same area. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.

- f. Once the Puerto Rican harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of any eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean es@fws.gov after the 36-hour search is concluded. g. If, after the initial search or after the 24 to 36-hour search, any life stage of the Puerto Rican harlequin butterfly is found in the prickly bush, take the following actions: o Clearly mark the host plant with flagging tape. o Establish a 10-meter (32-foot) buffer zone around the bush for its protection. o Eggs are typically found on the prickly bush's newly grown, tender branches. Once the egg hatch, the caterpillar moves and feeds throughout the bush. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present. o Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days. h. For all Puerto Rican harleguin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All Puerto Rican harlequin butterfly sighting reports should be sent to the Services Caribbean Ecological Service Field Office at caribbean es@fws.gov. j. For questions regarding the Puerto Rican harlequin butterfly, the Point of Contacts are: ; Jose Cruz-Burgos, Endangered Species Coordinator: ; Mobile: 305-304-1386; Office phone: 786-244-0081; Office Direct Line: 939-320-3120; Email: jose cruz-burgos@fws.gov; Carlos Pacheco, Fish and Wildlife Biologist; Mobile: 786-847-5951; Office Direct Line: 939-320-3113; Email: carlos pacheco@fws.gov
- Endangered Species Act The below conservation measures apply to the following plants species: Palo De Rosa (Ottoschulzia rhodoxylon) for fedders 9601-02, Palo de Nigua (Cornutia obovata) for feeder 9602-04 and, [Elfin tree fern (Cyathea dryopteroides), for feeder 9901-02... 30. Before initiating any work within the range of listed plant species and in areas with suitable habitat, applicants must conduct plant surveys. In the event that listed species are discovered at the project site, the Service must be notified. The Applicant must develop conservation measures to minimize or avoid impacts on those species and share those measures with the Service for evaluation and approval. If no listed plants are found during surveys, no further action is required. However, if a listed plant species is found while the project is being conducted, project personnel shall stop work, and the Service should be contacted for further technical assistance. Services point of contacts: ; Jose Cruz-Burgos, Endangered Species Program Coordinator, Mobile: 305-304-1386, Office: 786-244-0081, jose_cruz-burgos@fws.gov. ; Omar Monsegur, Fish and Wildlife Biologist, Mobile: (305) 304-0292, omar_monsegur@fws.gov.
- 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.
- . The Applicant shall ensure best management practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. To ensure that wetlands are not adversely impacted, per the Clean Water Act and Executive Order 11990, equipment storage and staging of construction materials and machinery must be in a location that would prevent erosion and sedimentation.
- 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. 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. - 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.

• 1. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. 2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a Sub-recipient or their contractor beginning 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 [Pole and Conductor Repair - Caguas Group 2 - Phase 2] (Distribution).

Final Reviews

Final Review

Reviewed By Amaro, Luis N.

Reviewed On 01/08/2025 10:30 AM PST

Review Comments

LNA 01/08/25. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 01/14/2025 5:20 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work

subaward based on a Fixed Cost Offer in the amount of \$14,261,249.67 for subaward number 11812 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas

Signed On 01/15/2025

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	745856 P/W# 107956	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt [Automation Program Group 14]	Front	
	(IL/Distribution)	Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Incident Start Date	9/17/2017
Completion Date		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 #1374348; FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 14 DAR ARECIBO 8404- FY24]

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: Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 14 DAR ARECIBO 8404- FY24
- Facility Description: Transmission and Distribution Automation Feeders ARECIBO 8404- FY24
- Approx. Year Built: 1980
- Start GPS Latitude/Longitude:
- End GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

1374348

FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Singl

Introduction

This document is to submit for approval a Detailed Scope of Work ("SOW"), to COR3 and FEMA, for the Transmission and Distribution Automation Program under DR-4339-PR Public Assistance. The document provides a description of the project, including scope, schedule, and cost estimates. 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 according 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 following the Consent to Federal Funding Letter issued by PREPA and P3A, which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, to undertake work in connection with any Federal

Background

In order to rebuild the entire electrical grid, the Transmission & Distribution Automation Program ("Program") i n s t a l l s advanced technology equipment (*i.e.*, reclosers and communicating fault current indicators) to reduce service interruptions to the electrical grid caused by disaster-related damage. The multiple projects within this Program are designed related damage. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The strategy is to deploy full automation equipment to the transmission and to the distribution systems. While the individual projects are interconnected and enhance each other, each can also be implemented independent of each other, and each confers benefits independently. The Program includes multiple projects being implemented across the island on both systems. Automation is one of several initiatives to complete final restoration of the transmission and distribution systems. The 3.5 million residents throughout Puerto Rico are dependent upon the successful completion of the Program and its ability to sustain the power grid in future disasters.

Project 745856 is one of the Program's distribution-level projects. It installs hardened poles, advanced technology (specifically three-phase reclosers equipment ańd communicating fault current indicators), and online protection devices to reduce service interruptions to the distribution grid that could be caused by disaster-related damage. Implementing the reclosers and communicating fault current indicators is critical for the Energy Management System ("EMS") and related components to function at their full capabilities and mitigate components to function at their full capabilities and mitigate loss of service and potential damages for upcoming occurrences. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders 8404-03 and 8404-04.

Key components of this project are (1) pole replacement, (2) the installation of three-phase and single-phase reclosers, and (3) the installation of communicating fault current indicators. Each of these components and their benefit to the grid are described further below:

Pole Replacement to Accommodate the Installation of Reclosers

The addition of three-phase reclosers imposes additional load on poles due to the weight and operational components of the devices and it also increases the wind area exposed to extreme weather conditions, such as hurricanes, thereby augmenting the structural load these poles must withstand. Pole loading analysis will be used to determine whether a recloser pole and/or pole adjacent to the recloser will maintain structural integrity. If the pole cannot maintain structural integrity, higher-class (strength) structures/poles made of steel or concrete will be installed to comply with codes and standards. This includes adjacent poles (*i.e.*, poles that are on either side of the recloser pole supporting the

overhead line conductors). Any new structure and foundation will be designed to LUMA design and industry standards so they can support the pole, recloser and its attachments.

In addition, LUMA is using a per-location approach to pole replacement because of the intricate dynamics of deploying three-phase reclosers. Furthermore, the integration of more connections, switches, and related infrastructure often necessitates taller poles to meet phase spacing and circuit-to-circuit spacing requirements. Therefore, LUMA will replace all wood poles where three-phase reclosers are being installed, irrespective of their current condition, to address the prerequisites, and ensure the resilience and reliability of the electrical grid infrastructure.

Feeder Reclosers

Reclosers are sophisticated devices that remotely detect faults within distribution lines, enable the isolation of circuit breakers linked to those faults—whether due to independent failures or breakdowns—and facilitate the swift restoration of power, often within milliseconds. This project will install three-phase and single phase reclosers on a distribution feeder.

Three-Phase Reclosers A three-phase recloser is a protection device that is used on three-phase distribution feeders with high fault currents at the location. It is a single device with three switches that can open to

interrupt fault currents and automatically reclose to restore power. Three-phase reclosers are communication-ready to enable remote control and visualization.

Implementation of three-phase reclosers will preserve the continuity of electric services by pre-empting or minimizing disruptions. The three-phase reclosers can be triggered remotely and provide data back to the operations center, enabling LUMA to prioritize restoration activities, reduce customer outage time, and minimize the potential for cascading infrastructure damage. Installation of the three-phase reclosers and associated hardware is critical for the EMS and associated components to function with full capabilities and to prevent loss of service and potential damages in future disasters.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three-phase recloser, but it does not have the ability to communicate with the EMS. This project will install single-phase reclosers on the distribution feeder and distribution lines branching from the feeder. It is a protection device that is used on a single-phase or a two-phase distribution feeder. Single-phase reclosers are used on feeders with three-phases if fault currents are low at the location. A single-phase recloser is a single device with one switch that can open to interrupt fault currents and automatically reclose to restore power.

Communicating Fault Current Indicators

Install communicating fault current indicators ("cFCI") at strategic locations to improve the outage management, restoration, and recovery process, specifically by decreasing the time required to detect and locate faults. cFCI operate independent of the feeder reclosers. cFCI help identify permanent and incipient faults in the distribution system and collect voltage and current data which can be used to detect system imbalance, prevent future issues due to harmonics and help in building a predictive failure models. That data is used by the grid operator to make decisions on operations, management and restoration. The cFCI can be programmed to send automatic notification/alarms based on user set parameters. This allows for quick dispatch of field crews to specific sections of the feeders and reduces the total restoration time during an outage event which saves. Installation of the three-phase reclosers and associated hardware, the communicating fault current indicators (communications ready) are critical for the Energy Management System ("EMS") and associated components to function with full capabilities and to mitigate the loss of service and potential damages in future disasters.

This project is distinguishable from projects where the reclosers are installed on microgrids, such as those in Vieques and Culebra. Microgrids require extremely fast communications that fiber optics can provide; other advanced technology such as Phasor Measurement Units may also require such high speed/bandwidth communications. That speed/bandwidth is not required on a standard feeder and would significantly increase the cost. LUMA has developed this scope for reclosers and their associated hardware only. CFCIs and reclosers can communicate through a few different modes of communications, so the lack of fiber optics in this scope of work does not prevent or limit the monitoring capabilities of reclosers and cFCIs or the automation capabilities of reclosers. Furthermore, it does not prohibit the incorporation of fiber optics at a later date.

Facilities Description

The facilities listed below are part of the electrical distribution system. All feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below represent the mainline backbone of each feeder. Please refer to the *APPENDIX D – LUMA's Active Projects* to show no duplication of scope elements.

Facilities List

Name	Feeder Number	GPS Start	GPS End

Arecibo	8404-03	
Arecibo	8404-04	

Note: Please refer to APPENDIX C— Project Considerations for a list of all GPS locations that this project will impact.

Project Scope of Work:

Below is a list of the "Proposed 428 Public Assistance Scope of Work" proposed for Feeders in this project.

Proposed 428 Public Assistance Scope of Work

Feeder 8404-03

Pole FID	Coordinates Lat./ Long	Existing	Install	Scope of Work
21155837		(E-1-2-3) (F-1-3)	(REC-2-1) (E-1-2-3) (F-1-3) (K-5)	Replace existing primary framing. Install secondary framing. Remove and dipose down guy. Remove and dispose anchor. Install (2) Down guys. Install (2) Down guys. Install (2) anchors. Install 1 kva transformer (7.62kv/120v) from source si Install 1 three- phase Recloser 8404-03A in existing 50' S8 Steel pole.

Pole FID	Coordinates Lat./ Long	Existing	Install	Scope of Work
19656773		(40' H3 CONORETE POLE) (AC-CI) (STL-10) (E-2-1)	(50' S8 12- SIDED GALVANZED STEEL POLE) (CP-C6- XARM) (REC-2-1) (K-6) (STL-10)	 Remove and dispose 40' H3 Concrete pole Replace with 50' S8 12 Sided Galvanized Steel Pole. Replace primary framing. Replace streetlight. Install 1 Kva transformer (7.62kv/120v) from source side. Install (1) Three-Phase Recloser 8404-03B.

21155576	(STD-SC- VERTICAL 38KV FRAMING)	(OP-OG-XARM) (REC-2-1) (E-I2-3) (F-I-3) (K-5)	Replace primary framing. Install down guy. Install anchor. Install 1 kva transformer (7.62kv/120v) from source side. Install (1) Three Phase Recloser 8404-03C in existing 60' H6 Concrete Pole.
1001153163	(CP-C6-XARM)	(CP-C6-XARM)	Replace primary framing.Reuse secondary framing.
		(REC-3-C)	 Install (3) Single- Phase Recloser in existing 70' Steel Pole.
1001153159	(FUSEREMOVAL (QTY=3)) (LABOR ONLY)	NA	 Remove and dispose fuse fid: 1001153182 (qty= due to single-phase recloser installation.
19582536	(FUSE REMOVAL (QTY=3)) (LABOR ONLY)	NA	 Remove and dispose fuse fid: 19582607 (qty=3) due to Single-phase recloser installation.
19583050	(50° C2 WOOD POLE) (AC-C1) (CP-C5-XARM) (ASSY-1509) (E-1-2-3) (F-1-3) (K-5) (STL-10)	(50' S8 STEEL POLE) (CP- C5- XARM) (ASSY-1509) (E-1-2- 3) (F-1-3) (K-5) (STL-10) (REC-3-C)	 Remove and dispose 50' C2 wood pole . Replace with 50' S8 12 sided galvanized steel pole. Replace primary framings. Use existing secondary framing. Replace downguy. Replace anchor. Replace streetlight. Install (3) Single- Phase recloser.
19585342	(FUSE REMOVAL (QTY=3)) (LABOR ONLY)	NA	Remove fuse and dispose fid: 19585360 (qty=3) due to single-phase recloser installation.

Pole FID	Coordinates Lat./ Long	Existing	Install	Scope of Work
32071682		(CP-O6-XARM) (CP-CS-ARM) (ASSY- 1509) (FUSE REMOVAL (QTY=3))	(CP-C6-XARM) (CP-CS-XARM) (REC-3-C)	 Replace primary framings. Use existing secondary framing. Remove fuse fid: 32071704 (qty=3) Install (3) Single-Phase- Recloser in existing 50' S8 Steel Pole.
32080734		(FUSE REMOVAL (QTY=3)) (LABOR ONLY)	NA	 Remove and dispose fuse fid: 32080748 (qty=3) due to single- phase recloser installation.

32083926	(45' S3 STEL POLE)(OP:06- XARM)(OP: A5)(T1)(K-7-4)	(50' S8 12-SDED STEEL POLE) (OP-06-VERT) (OP-A5) (K-7-4) (T-1)	 Remove and dispose 45' S3 steel pole. Replace with 50' S8 12-sided galvanized steel pole. Replace primary framings. Transfer secondary framing. Replace streetlight. Transfer transformer. Install (3) Single-phase reclosers.
-		(12000124)	 Remove and dispose fuse fid: 32072816
21158750		NA	 Nerrove and dispose ruse rul. 52072016 (qty=3) due to single-phase recloser installativ
32080820	(FUSE REMOVAL (QTY=3)) (LABOR ONLY)	NA	Remove and dispose fuse fid: 32086124 (qty=3) due to single-phase recloser installativ
NA	NA	(LABOR, cFO) (QTY=3)	Labor to install communicating fault curren indicators on Segment ld 22102694
NA	NA	(LABOR, cFO) (QTY=3)	Labor to install communicating fault curren indicators on Segment ID 21157976.

Feeder 8404-04

Pole FID	Coordinates Lat./ Long	Existing	Install	Scope of Work
6317810		(50' H4 CONORETE POLE) (CP-C6) (STL- 10) (E-1-2-3) (F-1-3)	(50' S8 12 SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (STL-10) (REC-2) (K-7-4)	Remove and dispose 50' H4 concrete pole Replace with 50' S8 12- sided Calvanized Steel pole. Replace primary framing. Replace secondary framing. Use existing triplex from source side due to three phase recloser 8404-04A. Remove and dispose downguy. Remove and dispose anchor. Install (1) Three-phase recloser 8404-04A.
6317799		(FUSE REVIOVAL (QTY=3)) (LABOR ONLY)	NA	Remove and dispose fuse fid: 1001600860 (qty=3) due to three phase recloser 8404- 04A installation.
1001655999		(FUSE REMOVAL (QTY=3)) (LABOR ONLY)	NA	 Remove and dispose fuse fid: 15600995 (dy=3) due to three phase recloser 8404-04A installation.

12221060	(45' CLASS 3 WOOD POLE) (CP- C1) (CP-C1-XARM) (STL- 10)	(60' S8 12 SIDED GALVANIZED STEEL POLE) (CP-C1) (CP-C6-XARM) (STL-10) (K- 6) (REC-2-1)	 Remove and dispose 45' class 3 wood pole Replace with 60' S8 12-sided Galvanized Steel pole. Replace primary framings. Replace secondary framing. Replace streetlight. Install two (2) 1 kva transformer (7.62kv/120v) from source side and load side. Install (1) Three-phase recloser 8404-04B.
17458278	(45' H4 CONORETE POLE) (CP:C12- XARM) (K-5) (STL-10) (E-1-2-3) (FUSE REMOVAL (QTY=3))	(50' S8 12 SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (REC-2) (K-5) (STL-10) (E-1-2-3) (3/0TPX(QTY= 180FT)	 Remove and dispose 45' H4 concrete pole. Replace with 50' S8 12 Sided Calvanized steel pole. Replace primary framing. Replace secondary framing. Install triplex from source side pole fid: 17458269. Replace streetlight. Replace downguy. Remove fuse fid: 29541626 (qty=3). Re attach riser. Install (1) Three-Phase Recloser 840-04C.

Pole FID	Coordinates Lat./ Long	Existing	Install	Scope of Work
17458661		(45' H4 CONORETE POLE) (CP-C6-XARM) (E-1-2-3)	(50' S8 12 SIDED GALVANZED STEEL FOLE) (OP-C6-XARM) (K-5) (3/0TPX(QTY=200FT)	Remove and dispose 45' H4 Concrete pole. Replace with 50' S8 12 sided Galvanized steel pole. Replace primary framing.
			(REC-2)	Install secondary framing. Install triplex from source side pole fid: 17458269. Install Three-Phase Recloser 8404-04E
17458269		NA	(K-6)	 Install secondary framing due to three- phase reclosers 8404-04C & 8404-04D
NA		NA	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Current indicator on Segment id 22102697.

For more detailed information about the scope of work please refer to the APPENDIX B-LUMA Project Cost Estimate.

Scope Notes:

1) The work will be performed in accordance with the notes below, the Distribution Construction Standards (Concrete Base Standard) and LUMA Overhead Electrical Distribution System Manual V4, and APPENDIX C – Project Considerations.

Pole Replacement

a. Remove and replace poles, including hardware in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

b. Most pole installations are to replace existing poles at the same location. Refer to APPENDIX C – Project Considerations, column C (soil area and depth impact) for the depths of the poles to be installed.

c. Adjacent poles will be installed, in locations noted in table above, in conformance with LUMA and industry standards.

d. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual within 3ft of the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.

e. The brushing of vegetation will be limited to a 10 ft radius that surrounds the surface of the pole without exceeding the width of the right-of-way. No tree removal will occur as part of this scope. Refer to **APPENDIX C- Project Considerations** or locations where vegetation brushing is anticipated. The vegetation removal process will be managed according to applicable federal and state regulations.

f. All existing overhead conductors, poles, assemblies, and attached components will be disconnected, removed, disposed, and replaced as outlined in the scope of work. When poles, assemblies, and attached components are not being replaced per the scope of work, all assemblies and components will be reinstalled to the pole, with the overhead conductor reattached to complete the installation and reconstruction of the feeder.

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

2) Debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local regulations.

3) The construction of **access roads** is not required for this scope of work. Poles are close to the roads and are site accessible.

4) **Staging area** requirements were considered for the new equipment to be installed and the equipment to be retired. All materials will be stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Arecibo Regional Warehouse whose address is 681 Street KM0.1, Islote Ward, Arecibo, PR. Coordinates are the continue of the assigned to document Warehouse. Refer to document Warehouse to document Warehouse assigned.

5) Fill, Gravel, and Sand **materials** will be obtained from an approved supplier as referenced in the document *LUMA Vendor Directory List.*

6) The **equipment** to be used is a Skid Steer, Excavator, Dump truck, Manlift, 120- ton Motor Crane, Boom Trucks, 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine, and Flatbed platform. **Vegetation** will be removed utilizing a machete, chainsaw electric pruner, telescopic pole pruner, bucket truck, and/or chipper. All equipment used will comply with Tier 4 EPA Emission Standard, if available.

7) Specific List of Permits Required:

a. Department of Transportation and Public Works - ("DTOP") Endorsements & Municipality Notifications

b. Excavation and Demolition Notification in the DTOP

c) LUMA will provide proof of all permits.

Project Cost Estimate: (PCE)

The estimated costs (compliant with Class 3 Accuracy +/-30%) to complete the project are captured in the table(s) 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 to mitigate potential known risks. For more details, refer to **APPENDIX B- Detailed Cost Estimate**.

TOTAL PROJECT COST ESTIMATE					
COST ELEMENT	428	406	PROJECT TOTAL		
PLANNING	\$129,374.39	-	\$129,374.39		
MANAGEMENT	\$79,230.50	-	\$79,230.50		
DISTRIBUTION AUTOMATION	\$1,358,561.50	-	\$1,358,561.5		
GROUP 14 DAR ARECIBO 8804 FY24					
GENERAL CONDITIONS	\$87,195.23	-	\$87,195.23		
CONTINGENCY	\$194,430.23	-	\$194,430.23		
COST TOTALS	\$1,848,791.85	-	\$1,848,791.8		
DEDUCTIONS	TOTAL INSURANCE PROCEEDS R	RECEIVED	\$0		
	FAASt Project # 745	FAASt Project # 745856 TOTAL			
THUR ALLOUATION	FAASt A&E # 335	FAASt A&E # 335168 TOTAL			

Project Cost Summary, Version 0:

Work to be Completed (WTBC): \$1,848,791.85

A&E Deduction (Global A&E FAASt 335168): -\$208,604.89

Project Total Cost: \$1,640,186.96

Project Notes:

- 1. Refer to the detailed SOW provided in document 745856 DSOW Group 14 DAR ARECIBO 8404 Rev 2.pdf
- 2. For Appendix A through D, refer to the following files:

APPENDIX A - Initial Scope of Work : 745856-DR4339PR-APPENDIX A- Initial Scope of Work.pdf

	APPENDIX B - LUMA Project Cost Estimate : 745856-DR4339PR-APPENDIX B-DETAILED COST ESTIMATE-	Rev
002.xlsx		

APPENDIX C - Project Considerations : 745856-DR4339PR-APPENDIX C-PROJECT CONSIDERATIONS Rev 02.xlsx

APPENDIX D - LUMA Active Project : 745856-DR4339PR-APPENDIX D - LUMA's Active Projects.xlsx

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

4. This project is part of Donor FAASt 136271 – MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.

5. The permanent staging area will be located at LUMA's Regional Warehouse. The warehouse assigned is the Arecibo Regional Warehouse, whose address is 681 Street KM0.1, Islote Ward, Arecibo, PR. Coordinates are

406 HMP SCOPE

406 Hazard Mitigation measures were not requested by the subrecipient for this project in Version 0. However, the mitigation opportunities will be applied in a future version (V1) of the Permanent Work Project. The project is ready for Insurance completion

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (V0 Engineering and Design Services, Deduction - PREPA FAASt Global A&E 335168)	1.00	Lump Sum	(\$208,604.89)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (V0 Contract - PREPA FAASt Donor Project 136271)	1.00	Lump Sum	\$1,848,791.85	Uncompleted

CRC Gross Cost	\$1,640,186.96
Total 406 HMP Cost	\$0.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$1,640,186.96
CRC Net Cost Federal Share (90.00%)	\$1,640,186.96 \$1,476,168.27

Award Information

Version Information

Version # Eligibility Status Current Location Bundle Number Project Amount Cost Share Federal Share Obligated Date Obligated

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 #
0	2/6/2025	\$1,476,168.27	90%	Accepted	4339DRPRP01079561

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

<u>11/27/2024</u>

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 745856

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 \$1,640,186.96

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: <u>Willis Towers Watson</u> (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18529F17, B0804Q14312F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

Multinational Insurance Company (88-CP-000307831-2, 88-CP-000318673-0, 88-CP-000318674-0, 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) #1374348:

FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 14 DAR ARECIBO 8404- FY24]

Location: Transmission and Distribution Automation - Feeders ARECIBO 8404- FY24

GPS Coordinates: Start to End.

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: CRC Gross Cost \$1,640,186.96

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.
Reduction(s):

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

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Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 14 DAR ARECIBO 8404- FY24] because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

...

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Automation Program Group 14] (TL/Distribution).

406 Mitigation

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.
- a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out. d. 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 the 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.
- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Puerto Rican Boa (Chilabothrus inornatus) 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project. 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harm�s way as the result of the habitat disturbance (see #6). 4. For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6). 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior.
- 6.If any PR or VI boa (dead or alive) is found within the Action Area and on harm's way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested)at least1kmfrom the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project start sand sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process. 7.Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. �Any heavy

machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boa shave sheltered within engine compartments or other areas of the heavy machinery. If a PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. � The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. �:In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. � If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. �Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. For questions and to submit reports, the Service�s Point of Contact (POC) is José Cruz-Burgos, Endangered Species Coordinator, and can be contacted at:Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: Caribbean es@fws.gov or jose cruz-burgos@fws.gov

- Buteo platypterus brunnescens and Amazona vittata 9. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. During breeding seasons (see below), nest surveys shall be conducted if a project occurs within the range of any of the species listed above and if habitat for those species will be impacted by the proposed actions. Nest searches must be conducted by qualified personnel with the appropriate permits from the Puerto Rico Department of Natural and Environmental Resources (PRDNER) prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 50-meter buffer around any nest(s) found within the project area. This avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently. Outside the breeding season no nest surveys are required, but if a nest is encountered, all construction activities or human disturbance must be avoided within a 50-meter buffer around that nest(s). This avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently. Furthermore, if any of the species indicated above is observed (e.g., foraging, resting) within the project area, avoid any disturbance to the individual(s) and do not flush the bird until it leaves on its own. Nesting seasons: � Puerto Rican parrot: February-June. � Puerto Rican broad-winged hawk: December-June. For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. All sightings and incidental lethal take reports should be sent to the . For guestions, the Point of Contact (POC) is José Cruz-Burgos, Endangered Species Program Coordinator, and can be contacted at: USFWSCaribbeanEcological ServicesField OfficeatCaribbean es@fws.gov. For questions, the Point of Contact (POC) is José Cruz-Burgos, Endangered SpeciesProgramCoordinator, and canbe contacted at: Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: jose_cruz-burgos@fws.gov
- Puerto Rican harlequin butterfly (Atlantea tulita) 34. The Puerto Rican harlequin butterfly (Atlantea tulita) is endemic to Puerto Rico, occurring in the western portion of the island, in the northern karst region, and in the west-central volcanic-serpentine region. The following measures apply to the Puerto Rican harlequin butterfly through its current range: a. The contractor must inform all personnel about the potential presence of the Puerto Rican harlequin butterfly and its host plant, prickly bush (Oplonia spinosa), in the project areas. A pre-work meeting should inform all project personnel about the need to avoid harming this butterfly and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. Educational material (e.g., posters, flyers, or signs with photos or illustrations of all the life stages of the Puerto Rican harlequin butterfly (i.e., eggs, caterpillar, chrysalids, and adult, and its host plant) should be prepared and available to all personnel for reference. b. Before starting any project activity, including removal of vegetation and earth movement, the contractor must clearly delineate the boundaries of the working area in the field to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the Puerto Rican harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the Puerto Rican harlequin butterfly can be observed year-round in all life stages; thus, oviposition (egg-laying) may occur at any time during the year. c. If the prickly bush is present on the project site, try to avoid cutting the plant, even if no eggs, caterpillars, or chrysalids are present. d. If there is no prickly bush within the project area, but the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species. e. Adult butterflies are often observed flying near the host plant as part of their mating behavior and for laving eggs. Project-related activities must stop if the prickle bush is found in the project area and the Puerto Rican harlequin butterfly is observed flying in that same area. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.
- f. Once the Puerto Rican harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of any eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean_es@fws.gov after the 36-hour search is concluded. g. If, after the initial search or after the 24 to 36-hour search, any life stage of the Puerto Rican harlequin butterfly is found in the prickly bush, take the following actions: o Clearly mark the host plant with flagging tape. o Establish a 10-meter (32-foot) buffer zone around the bush for its protection. o Eggs are typically found on the prickly bush's newly grown, tender branches. Once the egg hatch, the caterpillar moves and feeds throughout the bush. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present. o Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days. h. For all Puerto Rican harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should

also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All Puerto Rican harlequin butterfly sighting reports should be sent to the Service�s Caribbean Ecological Service Field Office at caribbean_es@fws.gov. j. For questions regarding the Puerto Rican harlequin butterfly, the Point of Contacts are: o José Cruz-Burgos, Endangered Species Coordinator:  Mobile: 305-304-1386  Office phone: 786-244-0081  Office Direct Line: 939-320-3120  Email: jose_cruz-burgos@fws.gov o Carlos Pacheco, Fish and Wildlife Biologist  Mobile: 786-847-5951  Office Direct Line: 939-320-3113  Email: carlos pacheco@fws.gov

- 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.
- 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 PCBsinto the environment. If damaged equipment or materialstorage 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.
- 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.
- Additional staging areas and/or work pads within work site area haven�t been identified yet. The Recipient/Subrecipient
 and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as
 available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads
 confined to previously disturbed or hardened surfaces can be provided at close-out.

EHP Additional Info

There is no additional environmental historical preservation on FAASt [Automation Program Group 14] (TL/Distribution).

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L.

Reviewed On 12/31/2024 8:23 AM PST

Review Comments

Project has been reviewed, found eligible and reasonable. Subrecipient is responsible for complying with all grants and subgrant conditions. - CLG 12.31.24

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 01/14/2025 5:25 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$1,640,186.96 for subaward number 107956 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas

Signed On 01/15/2025

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	745861 P/W# 107957	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt [Automation Program Group 12]		00)
-	(TL/Distribution)	Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Incident Start Date	9/17/2017
Completion Date		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 #1374353; FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 12: DAR – ARECIBO 7402, 7403, 7702 FY24

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: Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 12: DAR ARECIBO 7402, 7403, 7702 FY24
- Facility Description: Transmission and Distribution Automation Feeders ARECIBO 7402, 7403, 7702 FY24
- Approx. Year Built: 1980
- Start GPS Latitude/Longitude:
- End GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

1374353

FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Singl

INTRODUCTION AND BACKGROUND

Introduction

This document is to submit for approval a Detailed Scope of Work ("SOW") to COR3 and FEMA for the Transmission and Distribution Automation Program under DR-4339-PR Public Assistance. The document provides a description of the project, including scope, schedule, and cost estimates. 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 according 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 following the Consent to Federal Funding Letter issued by PREPA and P3A, 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.

Background

In order to rebuild the entire electrical grid, the Transmission & Distribution Automation Program ("Program") installs advanced technology equipment (*i.e.*, reclosers and communicating fault current indicators) to reduce service interruptions to the electrical grid caused by disasterrelated damage. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The strategy is interconnected and enhance each other, each can also be implemented independent of each other, and each confers benefits independently. The Program includes multiple projects being implemented across the island on both systems. Automation is one of several initiatives to complete final restoration of the transmission and distribution systems. The 3.5 million residents throughout Puerto Rico are dependent upon the successful completion of the Program and its ability to sustain the power grid in future disasters.

Project 745861 is one of the Program's distribution-level projects. It installs hardened poles, advanced technology equipment (specifically three-phase reclosers and communicating fault current indicators), and online protection devices to reduce service interruptions to the distribution grid that could be caused by disaster-related damage. Implementing reclosers and communicating fault current indicators is critical for the Energy Management System ("EMS") and related components to function at their full capabilities and mitigate loss of service and potential damages for upcoming occurrences. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders of this project.

Key components of this project are (1) pole replacement, (2) the installation of three-phase and single-phase reclosers, and (3) the installation of communicating fault current indicators. Each of these components and their benefit to the grid are described further below:

Pole Replacement to Accommodate the Installation of Reclosers

The addition of three-phase reclosers imposes additional load on poles due to the weight and operational components of the devices and it also increases the wind area exposed to extreme weather conditions, such as hurricanes, thereby augmenting the structural load these poles must withstand. Pole loading analysis will be used to determine whether a recloser pole and/or pole adjacent to the recloser will maintain structural integrity. If the pole cannot maintain structural integrity, higher-class (strength) structures/poles made of steel or concrete will be installed to comply with codes and standards. This includes adjacent poles (*i.e.*, poles that are on either side of the recloser pole supporting the overhead line conductors). Any new structure and foundation will be designed to LUMA design and industry standards so they can support the pole, recloser, and its attachments.

In addition, LUMA is using a per-location approach to pole replacement because of the intricatedynamics of deploying threephase reclosers. Furthermore, the integration of more connections, switches, and related infrastructure often necessitates taller poles to meet phase spacing and circuit-to-circuit spacing requirements. Therefore, LUMA will replace all wood poles where three-phase reclosers are being installed, irrespective of their current condition, to address the compound structural demands and spacing prerequisites, and ensure the resilience and reliability of the electrical grid infrastructure.

Feeder Reclosers

Reclosers are sophisticated devices that remotely detect faults within distribution lines, enable the isolation of circuit breakers linked to those faults—whether due to independent failures or breakdowns—and facilitate the swift restoration of power, often within milliseconds. This project will install three-phase and single-phase reclosers on a distribution feeder.

Three-Phase Reclosers A three-phase recloser is a protection device that is used on threephase distribution feeders with high fault currents at the location. It is a single device with three switches that can open to interrupt fault currents and automatically reclose to restore power. Three-phase reclosers are communication-ready to enable remote control and visualization.

Implementation of reclosers will preserve the continuity of electric services by pre-empting or minimizing power disruptions. The three-phase reclosers can be triggered remotely and provide data back to the operations center, enabling LUMA to prioritize restoration activities, reduce customer outage time, and minimize the potential for cascading infrastructure damage. Installation of the three-phase reclosers and associated hardware is critical for the EMS and associated components to function with full capabilities and to prevent loss of service and potential damages in future disasters.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three-phase recloser, but it does not have the ability to communicate with the EMS. This project will install single-phase reclosers on the distribution feeder and distribution lines branching from the feeder. It is a protection device that is used on a single-phase or a two-phase distribution feeder. Single-phase reclosers are used on feeders with three-phases if fault currents are low at the location. A single-phase recloser is a single device with one switch that can open to interrupt fault currents and automatically reclose to restore power.

Communicating Fault Current Indicators

communicating management, ("cFCI") strategic improve fault indicators Install current at locations the to outage required to detect and locate faults. cFCI operate independent of the feeder reclosers. cFCI help identify decreasing time the permanent and faults distribution system collect incipient the and voltage in be used current data which can to detect system imbalance, prevent future anď issues dŭe and current data which can be used to detect system imbalance, prevent tuture issues due to harmonics and help in building a predictive failure models. That data is used by the grid operator to make decisions on operations, management and restoration. The cFCI can be programmed to send automatic notification/alarms based on user set parameters. This allows for quick dispatch of field crews to specific sections of the feeders and reduces the total restoration time during an outage event which saves. Installation of the three-phase reclosers and associated hardware, the communicating fault current indicators (communications ready) are critical for the Energy Management System ("EMS") and associated components to function with full capabilities and to mitigate theloss of contine and potnial damages in firture disacters. service and potential damages in future disasters.

This project is distinguishable from projects where the reclosers are installed on microgrids, such as those in Vieques and Culebra. Microgrids require extremely fast communications that fiber optics can provide; other advanced technology such as Phasor Measurement Units may also require such high speed/bandwidth communications. That speed/bandwidth is not required on a standard feeder and would significantly increase the cost. LUMA has developed this scope for reclosers and their associated hardware only. CFCIs and reclosers can communicate through a few different modes of communications, so the lack of fiber optics in this scope of work does not prevent or limit the monitoring capabilities of reclosers and cFCIs or the automation capabilities of reclosers. Furthermor, it does not prohibit the incorporation of fiber optics at a later date.

Facilities Description

The facilities listed below are part of the electrical distribution system. All feeders originate from a substation (start) and serve customers along the route to various locations (end). The

coordinates shown below represent the mainline backbone of each feeder. Please refer to the **APPENDIX D – LUMA's Active Projects** to show no duplication of scope elements.

Name	Damage Number	Feeder Number	GPS Location
Arecibo	1374353	7402-01	
Arecibo	1374353	7403-02	
Arecibo	1374353	7702-02	
Arecibo	1374353	7702-03	

Facilities List

Note: Please refer to APPENDIX C— Project Considerations for a list of all GPS locations that this project will impact.

Project Scope of Work

Below is a list of the "Proposed 428 Public Assistance Scope of Work" proposed for feeders of this group.

Proposed 428 Public Assistance Scope of Work

Feeder 7402-01

FID COOR	RDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
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21664670	(60' WOOD POLE) (38KV SC DE VERT) (CP- C6- XARM) (T-1) (STL- 10) (S-1)	(70' S8 12-SIDED GALVANZED STEEL POLE) (38KV SC DE VERT) (OP- OS- XARM)) (K-7-4) (STL-10) (3/0 TPX(QTY=400FT)) (REC-2)	 Remove and dispose of 60' wood pole. Replace with 70' S8 12- sided galvanized steel pole. Replace primary framings. Remove and dispose spacer framing and ckt. Replace secondary framing. Replace streetlight. Transfer transformer to pole fid: 1001475449. Install triplex from source side pole fid: 100147 due to three phase recloser 7402-01A. Install (1) Three-Phase

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				Reclser 7402-01A on a radial circuit.
1001475449		(CP-C6-XARM) (K-6) (STL-10) (S-1)	(OP-C12-XARM) (T-1) (K-6) (STL-10) (SOLD CUTCUT BLADES(QTY=3)) (3/0 TPX(QTY=300FT))	 Reuse 60' h6 concrete pole. Adjust 38kv framing to standard. Replace primary framing. Replace secondary framing. Remove and dispose streetlight from stut Install streetlight. Install transformer (37.5kva/ 4.16kv, 120/240v). Install solid cutout Blades in cutout fuse assembly.
28651889		(45' H4 CONORETE POLE) (S-6) (K-7)	(50' S8 12-SIDED GALVANIZED STELL POLE) (S-6) (REC- 2 - 2) (K-7-B) (3/0 TPX(QTY=500FT))	 Remove and dispose 45' H4 Concrete pol Replace with 50' S8 12- sided galvanized steel pole. Remove and dispose and dispose wood stub pole. Replace primary framing. Replace secondary framing Feed reclose from existing source side secondary. Install (1) Three-Phase recloser 74 01B on a radial circuit
28651876		NA	(SOLID CUTOUT BLADES(QTY=3)) (ASSY- 1509 (QTY=3)) (ASSY-1505 FIG. C)	 Install stand-off bracket assembly. Install solid cutout blades (qty=3) on exist pole.
1000331641		(ASSY-1509 (QTY=2)	(LABOR TO CLOSE JUMPERS(QTY=2))	Remove and dispose fuse fid: 100136749 (qty=2) and close jumpers due to three phase recloser 7402- 01b installation
33190825		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUNPERS(QTY=3))	Remove and dispose fuse fid: 338 (qty=3) and close jumpers due to phase recloser 7402-01b installation.
28654052		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 338 (qty=3) and close jumpers due to three phase recloser 7402-01b installation.

28651625	(45' CLASS 3 WOOD FOLE)	(50' S8 12-SIDED GALVANIZED STEEL POLE)	Remove 45' Class 3 wood pole.
	(S- 6)	(S-6) (REC-2-2)	Replace with 50' S8 12- sided galvanized steel pole and
	 (K-5) (E-1-2-3)	(K-7-B) (3/0 TPX(QTY=300FT))	relocate 5ft outside of private property fer
	(F-1-3)		Replace primary framing.
	(T-2)		Replace secondary

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				framing. • Install triplex from source side pole 22077816. • Remove and dispose dow nguy. • Relocate transformer two spans downstreamon pole fid: 28651671. • Install (1) Three-Phase recloser 7402-01C on radial circuit.
22077816		NA	(K-5)	Install secondary framing to feed recloser 7402-01c.
28651671		NA	(T-2)	Transfer transformer pole fid: 28651625 due to three recloser 7402-01c.
22077813		(LABOR, FUSE REMOVAL (QTY=3))	(LABOR, SOLID CUTOUT BLADES(QTY=3)	Replace fuses (qty=3) with cutout blades (qty=3) on existing 70' s8 steel pole.
28652000		(ASSY- 1509(QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3)	 Remove and dispose fuse fid: 338 (qty=3) and close jumpers due to phase recloser 7402-01c installation.
28654587		(ASSY-1509 (QTY=3)) (STAND- OFF BRACKET ASSY 1505- FIG. C)	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 1002131726 (qty=3) and close jumpers due to three phase recloser 7402- 01c installation.
NEWPOLE		NA	(50' S8 12-SIDED GALVANZED STEEL POLE) (S-6) (REC-2-2) (K-7-B) (3/0 TPX(QTY=250FT)	 Install a new 50' S8 12- sided galvanized steel pole. Install primary framing. Install secondary framing. Install triplex from source side pole 22074602. Install (1) Three-Phase recloser 7402-01D on a radial circuit.

21663664	(ASSY-1509 (QTY=3))	(SOLD CUTOUT BLADES(QTY=3)) (ASSY- 1509 (QTY=3)) (ASSY-1505 FIG. C) (K-2)	 Straighten and reuse existing 45' h4 concrete pole. Adjust guy wire tension. Install secondary framing to feed t phase recloser 7402- 01d. Replace existing crossarm with st off bracket assembly. Replace fuse fid: 33824826 (qty= cutout blade (qty=3) due to three phase recloser 7402- 01D installation.
22074602	NA	(K-5)	Install secondary framing to feed three phase recloser 7402-01

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
1000580231		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3)	Remove and dispose fuse fid: 1000580237 (qty=3) and close jumpers due to three phase reclose 7402-01d Installation.
21664915		(ASSY-1509 (QTY=3))	(LABOR TO OLOSE JUMPERS(QTY=3)	Remove and dispose fuse fid: 1001475321 (qty=3) and close jumpers due to three phase recloser 7402-01d Installation.
21665387		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3)	Remove and dispose fuse fid: 1002128988 (qty=3) and close jumpers due to three phase reclose 7402-01D installation.
21663839		(CP-C6-XARM) (S-6) (T-1)	(CP-06-XARM) (REC-2) (K7-B) (3/0 TPX(QTY=250FT))	Reuse 70' S8 steel pole. Replace primary framing. Replace secondary framing. Remove and dispose transformer. Install triplex cable from source side pole fid: 21663842 due to three phase recloser 7402-01E
21663842		NA	(K-5)	Install secondary framing to feed Three-phase recloser 7402-01E
21663849		(S-5)	(SOLID CUTOUT BLADES(QTY=3)) (ASSY- 1509 (QTY=3))	Reuse 72" crossarm Install cutout Blades (qty=3) on existing 70' s8 steel Pole.

21664232	(ASSY-1509 (QTY=3))	(LABOR TO OLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 33826922 (qty and Close jumpers due to three phase Reclose 7402-01E installation.
21664540	NA	(LABOR, cFO) (QTY=3)	Labor to install Communicating fault current indicator (cFOIs)
12137275	NA	(LABOR, cFCI) (QTY=3)	Labor to install Communicating fault current indicator (cFOIs)

Feeder 7403-02

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
17203195		(35 FT H3	(50' S8 12-SIDED	Remove and dispose of 35'
		CONORETE FOLE)	GALVANZED STEEL POLE)	H3 concrete pole
		(S-3)	(REC-2-2)	• Replace with 50' S8 12-
			(S-6)	sided galvanized steel pole.
			(E-1-2-3(QTY=2))	Install primary framing.
			(1-1-3(Q(1-2))	Install dow nguys.
				Install anchors.
				Install 1 kva transformers
				(2.40/7.62kv-120v) from
				source side.
				Install three phase recloser
				7403-02A.
17205736		(ASSY-1509 (QTY=2))	(LABOR TO CLOSE	Remove and dispose fuse
			JUMPERS(QTY=2))	fid: 1001811666 (qty=2) and
				close jumpers due to three
				phase recloser 7403-02A

			installation.
	(ASSY-1509 (QTY=2))	(LABOR TO CLOSE	Remove and dispose fuse
17205744		JUMPERS(QTY=2))	fid: 33631235 (qty=2) and
			close jumpers due to three
			phase recloser 7403-02A
			installation.
17207532	(35' C4 WOOD FOLE)	(45' S5.7 12-SIDED	Remove and dispose the
	(ASSY-1509 (QTY=2))	GALVANIZED STEEL POLE)	35' C4 wood pole.
	(42" CROSSARM) (CP- B6- XARM)	(CP-B6) (CP-B5)	Replace with 45' S5.7 12- sided galvanized steel pole.
	(CP-B5-XARM) (K-7) (STL- 10) (T-1)	(CUTOUT BLADES(QTY=2)) (ASSY- 1509(QTY=2)) (ASSY- 1505 FIG. B) (K-7) (STL-10) (T-1)	Install primary framing. Replace secondary framing. Replace streetlight. Bermine and dispose downous. Bermine an
			dispose anchor.
			Transfer transformer to
			new pole.
			Remove and dispose
	 		fuse fid: 33629050 (qty=2)
			and install cutout blades
			(qty=2) due to three phase
			recloser 7403-02A
			installation.
17203210	NA	(CUTOUT BLADES(QTY=3))	Install stand-off bracket
		(ASSY-1509 (QTY=3))	assembly.
		(ASSY-1505 FIG. C)	Install cutout blades
			(qty=3) on existing 40' h3

			concrete pole due to three
			phase recloser 7403-02A
			Installation.
17203200	(40' CLASS 3 WOOD	(45' S5.7 12-SIDED	Remove and dispose 40'
	POLE)	GALVANZED STEEL POLE)	class 3 wood pole.
	(CP- C6-XARM)	(CP-C6-XARM)	Replace with 45' S5.7 12-
	(T-2)	(T-2)	sided galvanized steel pole.
	(K- 5) (ASSY 1509 (QTY=3))	(K-5) (ASSY-1505-FIG. C) (REC-3-C)	Replace primary framing.
			Replace secondary framing.
			Transfer transformers.
			Install (3) single-phase

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				recloser 200A Remove and dispose fuse fid: 1001744062 (qty=3) due to single-phase
				recloser 200a Installation.
33189780		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS	Remove and dispose fuse
		(42" OROSSARM)	(QTY=3))	fid: 1001743346 (qty=3)
				and close jumpers due to
				three (3) single- phase
				recloser 200A installation.
33190400		(35' C4 WOOD	(45' S5.7 12-SIDED	Remove and dispose 35' C4 wood pole
		FOLE)	GALVANIZED STEEL FOLE)	• Replace with 45' S5.7 12- sided galvanized steel pole.
		(CP-C2)	(CP-C6-XARM)	Replace primary framing.
		(K-7-B)	(T-2)	Replace secondary framing.
				Transfer transformer.
1	<u> </u>			Install (3) single-phase recloser 200A.

	(T-2)	(К-7-В)	
	(10)000000000		
	(42 ORUSSARIVI)	(ASSY 1505 FIG. C)	
	(72" CROSSARM)	(REC-3-C)	_
	(E-1-2-3)		—
	(F-1-3)		
22400450	(400)(4500(00)(-0))		
33190432	(ASS1-1509 (Q11-5))	(LABUR TO CLUSE	Remove and dispose fuse
			fid: 33628522 (qty=3) and
		JUMPERS(QTY=3))	
			close iumpers due to
			three(3) three-phase
			recloser 200a Installation.
33190595	(ASSY-1509 (QTY=3))	(LABOR TO CLOSE	
	 		Remove and dispose fuse
		JUMPERS(QTY=3))	fid: 3628373 (qty=3) and
			close jumpers due to
			three(3) single-phase
			recloser 200a Installation.
17206664	(35' C5 WOOD FOLE)	(45'S5.7 12-SIDED	Remove and dispose 35'
	(CP-B6-XARM)		C5 wood pole.
		GALVANIZED STEEL POLE)	
	(K-7-4) (ASSY-1509 (QTY=2))	(CP-B6-XARM) (REC-3-B)	Replace with 45' S5.7 12- sided galvanized steel pole
	(
	(E-1-2-3) (F-1-3)	(T-2)	Replace primary framing.
		(K-7-4) (ASSY 1505 FIG. B)	Transfer transformer from fid: 17206667 p
			Replace secondary
			, ,
			framing.
			Remove and dispose
			daupare
			downguy.
			Remove and dispose

			anchor.
			Remove and dispose fuse
			fid: 1001811684 (qty=2) due
			to single-Phase recloser
			installation.
			• Install (2) single-phase
			recloser 200a
17206667	(40' C3 WOOD FOLE)		Remove and dispose 40'
	(CP-B6- XARM)	NA	C3 w ood pole.
	(T-8)		Remove and dispose
	(T-2)		primary framing.
			Remove and dispose
			voltage regulator.
			Transfer transformer to
			fid:17206664.
1001568083	(ASSY-1509 (QTY=2))	(LABOR TO CLOSE	Remove and dispose fuse
	(42" OROSSARM)	JUMPERS(QTY=2))	fid: 1001568089 (qty=2)

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				and close jumpers due to two (2) single-phase recloser 200a Installat

17207189	(40' S3 STEEL POLE) (OP-B5-XARM	(45' S5.7 12-SIDED	Remove and dispose of 40' S3 steel pole.
	 (QTY=2))	GALVANIZED STEEL POLE) (CP-B4)	• Replace with 45' S5.7 12-
	(T-2 (QTY=2)) (K-7-4) (ASSY 1509 (QTY=2)) (E-1-2-3) (F-1-3)	(T-2 (QTY=2)) (K-7-4) (E-1-2-3) (F-1-3) (REC-3-B)	Sided galvanized steel pole.Replace primary framing.Replace secondary framing.
			 Transfer transformers. Remove and dispose fuse fid: 100181396 (qty=2) due to single-phase recloser 200a Installation. Install (2) single-phase recloser 200A.
12137489	N⁄A	(LABOR, cFO(QTY=3))	Labor to install communicating Fault Current Indicator.
17203167	NA	(LABOR cFO((QTY=3))	Labor to install communicating Fault Ourrent Indicator.

Feeder 7702-02

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
19988467		(35' C4 WOOD POLE) (CP-C1) (K-7-4) (E-1-2-3)	(50' S8 12-SIDED GALVANZED STEEL POLE) (OP- C6-XARM) (K-6) (REC-2)	 Remove and dispose 35' C4 wood pole. Replace with 50' S8 12-sided Galvanized Steel pole. Replace primary framing. Replace secondary framing. Remove and dispose Down guy. Remove and dispose Anchor. Feed three phase recloser 7702- 02A from source side secondary. Install (1) three phase recloser 7702-02A in radia circuit.
33187098		(OP-C1) (STL-10)	(CP-OS-XARM) (STL-10) (ASSY 1505 FIG.Q(QTY=3)) (ASSY 1509 (QTY=3)) (CUTOUT BLADES (QTY=3))	 Replace primary framing. Replace streetlight. Low er transformer. Install cutout blades (qty=3) on existing pole due three phase recloser 7702-02A installation.
19988533		(ASSY-1509 (QTY=3)) (42" CROSSARM(QTY=2)	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 33612446 (qty=3) and close jumpers due to three phase recloser 7702- 02a in stallation.
19982999		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 1000213366 (qty=3) and close jumpers due to three phase recloser 7702-02a installation.
19983519		(40' CLASS 2 WOOD	(50'S8 12-SIDED	Remove and dispose of 40' class

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
		POLE) (K-7- 4) (ASSY- 1509 (QTY=3)) (STL- 10) (E-1-2-3) (F-1-3)	GALVANIZED STEEL POLE) (OP-06-XARM) (K-7-4) (STL-10) (REC-2)	 2 wood pole. Replace with 50'S8 12-Sided Galvanized stee pole. Replace primary framing. Replace secondary framing. Remove and dispose dowinguy. Replace streetlight. Remove and dispose fuse fid:33612283 (qty=3) due to three phase reclos 7702-02B installation. Feed three-phase Recloser 7702- 02B from source side Secondary. Install (1) three-phase Recloser 7702-02B in radial circuit.
19983514		(40' H4 CONORETE POLE) (S- 5) (S-6-2) (K-7-4)	(50'S8 12-SDED GALVANZED STEL POLE) (S- 5) (S-6-2) (E-1-2-3) (F-1-3) (LABOR CUTOUT BLADES(QTY=3)) (ASSY- 1509 (QTY=3)) (ASSY-1505 FIG. Q(QTY=3)) (K-7-4)	 Remove and dispose of 40' h4 concrete pole. Replace with 50' S8 12-Sided Galvanized sterpole. Replace primary framing. Replace secondary framing. Install anchor. Install downguy. Install cutout blades (qty=3) to three phase recloser 7702-02b installation.
19985281		(40' H4 CONCRETE POLE) (S-6)	(50° S8 12-SIDED GALVANIZED STEEL POLE) (S- 6) (3/0 TPX(QTY=160FT)) (REC-2)	Remove and dispose 40' h4 concrete pole. Replace with 50' S8 12-sided galvanized stee pole. Replace primary framing. Install triplex from pole fid: 19985275. Install (1) three-phase recloser 7702-02c.
19985275		(S-1)	(S-6) (LABOR, CUTOUT BLADES(QTY=3)) (ASSY- 1509 (QTY=3)) (ASSY-1505FIG. (QTY=3))	 Replace primary framing. Splice conductor. Low er transformer Install cutout blades (qty=3) on existing concr pole due to three phase recloser 7702-02c Installation.
19986073		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose fuse fid: 1001728390 (qty=3) and close jumpers due to three phase recloser 7702-02c Installation.
19986110		(ASSY-1509 (QTY=2))	(LABOR TO CLOSE JUMPERS(QTY=2))	Remove and dispose fuse fid: 33612199 (qty=2) and close jumpers due to three phase recloser 7702-02c Installation.

19983537		(ASSY-1509 (QTY=3))	(LABOR TO OLOSE JUMPERS(QTY=3))	 Remove and dispose fuse fid: 1001103336 (qty=3) and close jumpers due to three phase recloser 7702-02c nstallation.
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FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
19983781		(35' C4 WOOD POLE) (CP-C1) (T-3-2) (STL-10) (K-7- B)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (T-3-2) (STL-10) (K-7-B) (ASSY 1505 FIG. C) (REC-3-C)	 Remove and dispose of 35' C4 wood pole Replace with 45' S5.7 12-Sided Galvanize steel pole. Replace primary framing. Replace secondary framing. Replace streetlight. Transfer transformer. Install (3) Single-Phase Reclosers.
19983780		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 33612947 (qty=3) and close jumpers due t single-phase recloser installation.
19984650		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose fuse fid: 33612752 (qty=3) and close jumpers due to s i n g l e - phase recloser installation.
19984278		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUNPERS(QTY=3))	Remove and dispose fuse fid: 33612755 (qty=3) and close jumpers due t single-phase recloser installation.
19985282		(40' H4 CONCRETE POLE) (S-1) (S-5) ASSY 1509 (QTY=3))	(50 S8 12-SIDED GALVANIZED STEEL POLE) (S- 6) (S-5) (ASSY 1505 FIG. C) (REC-3-C)	 Remove and dispose of 40' h4 concrete pole. Replace with 50' S8 12-sided galvanized steel pole. Replace primary framings. Remove and dispose Fuse fid: 33613082 (qty=3). Install (3) Single-Phase reclosers.
19988674		(40° C3 WOOD FOLE) (CP-C1) (E-1-2-3) (F-1-3)	(45' S5.7 12-SIDED GALVANZED STEEL POLE) (CP-06-XARM) (ABS-3- XARM) (LABOR cFC) (QTY=3)	Remove and dispose of 40' c3 wood pole Replace with 45' S5.7 12-sided galvanize steel pole. Replace primary framing. Remove and dispose down guy. Remove and dispose anchor. Install air break switch. Labor to install communicating fault curre indicator
1001640533		n/a	(LABOR, cFCI) (QTY=3)	Labor to install communicating fault curre indicator.

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
27385857		(40 FT C2 WOOD POLE) (S- 2) (E-1-2- 3) (F-1-3)	50' S8 12-SIDED GALVANIZED STEEL POLE) (S- 6) (K-6) REC-2-2	 Remove and dispose of 40 ft c2 wood pol Replace with to 50' S8 12-sided galvanize steel pole. Install primary framing. Install secondary framing. Install 1 kva transformer (2.40/4.16kv-120/240v) for source side. Install three phase recloser 7702- 03A In r circuit.

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
27386240		(ASSY-1509 (QTY=3)) (ASSY 1510 FIG. C)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose fuse fid: 33633908 (qty=3) and close jumpers due to three phase recloser 7702-03A installation.
27385855		(ASSY-1509 (QTY=3)) (ASSY 1510 FIG. C)	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 33636412 (qty=3) and close jumpers due to three phase recloser 7702-03A installation.
27385861		(S-1)	(S- 6) (SOLID CUTOUT BLADES(QTY=3)) (ASSY- 1509(QTY=3)) (ASSY- 1505 FIG. C)	 Replace primary framing. Install cutout blades (qty=3 existing pole due to three pl Recloser 7702-03A installation.
27387694		(40' H3 CONCRETE POLE) (CP-C6-XARM) (K-7-B) (STL- 10) (ASSY 1509 (QTY=3)) (42" CROSSARM)	(45' S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (K-7-B) (ASSY-1505-FIG. C) (STL-10) (REC-3-C)	 Removed and dispose of 40 concrete pole with 45' S5.7 12- s galvanized steel pole. Replace primary framing. Replace secondary framing. Replace streetlight. Remove and dispose fuse fid: 33635525 (qty=3) due to single-phase recloser installation. Install three (3) single-phase recloser 200 a
27387698		(ASSY 1509 (QTY=1))	(CP-06-XARM)(CP-A5)(ASSY-1505-FIG.A)(REC-3-A)	 Replace primary framings. Remove and dispose fuse fid: 33635501 (qty=1) due to single- Phase recloser installation. Install (1) single- phase Reclos 200A on existing 45' H4 concrete pole
27386961		(Œ-C1) (Œ-A5)	(CP-C6-XARM) (CP-A5) (REC-3-A) (ASSY-1505- FIG. A)	Replace primary framing. Relocate transformer fuse cut- out to other face of pole. Install (1) single-phase Reclose 200A on existing 45' H4 concrete

27386974	(ASSY 1509 (QTY=2))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose fuse fid: 33635472 (qty=1) and close jumpers due to single-phase recloser 200a installation.
27383583	(45' H4 CONCRETE POLE) (OP-B1) (OP-A6) (K-7) (STL-10)	(45 S5.7 12-SDED GALVANZED STEEL POLE) (OP-O6-XARM) (K-7) (STL-10) (ASSY-1505-FIG. C) (REC-3-C)	 Remove and dispose of 45' h4 concrete pole. Replace with 45' S5.7 12-Sidec Galvanized Steel pole and install outside of private fence. Replace primary framing. Replace secondary framing. Replace streetlight. Install (3) single-phase reclosers 200A.
27384491	(ASSY 1509 (QTY=2)) (42" OROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=2))	Remove and dispose fuse fid: 33638346 (qty=2) and close jumpers due to single-phase reclc 200a installation.
27383616	(ASSY 1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	Remove and dispose fuse fid: 33638358 (qty=3) and close jumpers due to single-phase recloser 200a installation.

FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
12137020		n/a	(LABOR, cFO(QTY=3))	Labor to install communicating Fault Current Indicators.
27386235		n/a	(LABOR, cFQ(QTY=3))	Labor to install communicating Fault Ourrent Indicators. Replace a spacer at section FID 33636114

For more detailed information about the scope of work please refer to the APPENDIX B- LUMA Project Cost Estimate.

Scope Notes:

1) The work will be performed in accordance with the notes below, the Distribution Construction Standards (Concrete Base Standard) and LUMA Overhead Electrical Distribution System Manual V4, and APPENDIX C – Project Considerations.

Pole Replacement

a. Remove and dispose and replace poles, including hardware in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

b. Most pole installations are to replace existing pole locations; there is one new pole location included in this scope of work. Refer to APPENDIX C – Project Consideration column C (soil area and depth impact) for the depths of the poles to be installed.

c. Adjacent poles will be installed, in locations noted in table above, in conformance with LUMA and industry standards.

d. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution

System Manual within 3ft of the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.

e. The brushing of vegetation will be limited to a 10 ft radius that surrounds the surface of the pole without exceeding the width of the right-of-way. No tree removal will occur as part of this scope. Refer to **APPENDIX C- Project Considerations**for locations where vegetation brushing is anticipated. The vegetation removal process will be managed according to applicable federal and state regulations.

f. All existing overhead conductors, poles, assemblies, and attached components will be disconnected, removed, disposed, and replaced as outlined in the scope of work. When poles, assemblies, and attached components are not being replaced per the scope of work, all assemblies and components will be re-installed to the pole, with the overhead conductor re-attached to complete the installation and reconstruction of the feeder.

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

2) Debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local regulations.

3) The construction of **access roads** is not required for this scope of work. Poles are close to the roads and are site accessible.

4) **Staging area** requirements were considered for the new equipment to be installed and the equipment to be retired. All materials will be stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Arecibo Regional Warehouse whose address is Carr 861 Km 0.1 Islote Ward, Arecibo, PR. Coordinates are the address of the document *Warehouse Locations*. Refer to document *Warehouse Locations*.

5) Fill, Gravel, and Sand**materials** will be obtained from an approved supplier as referenced in the document *LUMA Vendor Directory List.*

6) The **equipment** to be used is a Skid Steer, Excavator, Dump truck, Manlift, 120- ton Motor Crane, Boom Trucks, 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine, and Flatbed platform Vegetation will be Remove and disposed utilizing a machete, chainsaw electric pruner, telescopic pole pruner, bucket truck, and/or chipper. All equipment used will comply with Tier 4 EPA Emission Standard, if available.

7) Specific List of Permits Required:

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

Project Cost Estimate (PCE):

The estimated costs (compliant with Class 3 Accuracy +/-30%) to complete the project are captured in the table(s) 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 to mitigate potential known risks. For more details, refer to **APPENDIX B- Detailed Cost Estimate**.

COST ESTIMATE						
COST ELEMENT 428 406 PROJE						
PLANNING	\$301,564.86	0	\$301,564.86			
MANAGEMENT	\$176,388.69	0	\$176,388.69			
Group 12- DAR – Arecibo	\$2,966,268.09	0	\$2,966,268.09			
7402, 7403, 7702 - FY24						
GENERAL CONDITIONS	\$190,483.18	0	\$190,483.18			
CONTINGENCY	\$507,458.83	0	\$507,458.83			

COST TOTALS	\$4,142,163.65 0		\$4,142,163.65
DEDUCTIONS	TOTAL INSURANCE PROCEEDS RECE	\$0	
	FAASt Project # 745861	\$3,664,210.10	
FAASTALLOCATIONS	FAASt A&E # 335168 1	\$477,953.55	

FEMA Project Cost Summary, Version 0

Work to be Completed (WTBC): \$4,142,163.65

A&E Deduction (Global A&E FAASt 335168): -\$477,953.55

Project Total: \$3,664,210.10

Project Notes:

- 1. For SOW detailed information, refer to documents/attachments labeled: 745861 DR4339PR DSOW- Group 12- DAR ARECIBO Rev 3.pdf
- 2. For Cost Estimate detailed information, refer to documents/attachments labeled: 745861-DR4339PR-APPENDIX B Detailed Cost Estimate Rev 003 .xlsx
- 3. This project is part of Donor FAASt 136271 MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.
- 4. Architectural and Engineering (A&E) costs are deducted given previously obligated PREPA FAASt Global A&E 335168 project.
- 5. Attachments:
- 745861-DR4339PR-APPENDIX A Initial Scope of Work
- 745861-DR4339PR-APPENDIX B Detailed Cost Estimate
- 745861-DR4339PR-APPENDIX C Project Considerations
- 745861-DR4339PR-APPENDIX D LUMA Active Project

406 HMP Scope

406 Hazard Mitigation measures were not requested by the subrecipient for this project in Version 0. However, the mitigation opportunities will be applied in a future version (V1) of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (3510 (v0 Engineering and Design Services (FAASt Project 335168)))	1.00	Lump Sum	(\$477,953.55)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (v0 Contract (FAASt Project 136271))	1.00	Lump Sum	\$4,142,163.65	Uncompleted

CRC Gross Cost	\$3,664,210.10
Total 406 HMP Cost	\$0.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$3,664,210.10
CRC Net Cost Federal Share (90.00%)	\$3,664,210.10 \$3,297,789.09

Award Information

Version Information

Version # Eligibility Status Current Location Bundle Number Project Amount Cost Share Federal Share Obligated Date Obligated

Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount

Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
0	2/6/2025	\$3,297,789.09	90%	Accepted	4339DRPRP01079571

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

<u>11/26/2024</u>

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 745861

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 \$3,664,210.10

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: <u>Willis Towers Watson</u> (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) #1374353:

FAASt [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 12: DAR – ARECIBO 7402, 7403, 7702 FY24

Location: Transmission and Distribution Automation - Feeders ARECIBO 7402, 7403, 7702 FY24

GPS Coordinates: Start to End.

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: CRC Gross Cost \$3,664,210.10

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 [Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 12: DAR – ARECIBO 7402, 7403, 7702 FY24 because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

•••

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Automation Program Group 12] (TL/Distribution).

406 Mitigation

There is no additional mitigation information on FAASt [Automation Program Group 12] (TL/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.
- Conditions for Puerto Rican Boa applicable to 7402 01, 7403 02, 7702 02, and 7702 03: 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project. 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harm way as the result of the habitat disturbance (see #6), 4. For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6).
- Conditions for (Chilabothrus inornatus) 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior. 6. If any PR or VI boa (dead or alive) is found within the Action Area and on harm way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested) at least 1km from the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project starts and sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process. 7. Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. Any heavy machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the heavy machinery. If a PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. For guestions and to submit reports, the Service Point of Contact (POC) is Jose Cruz-Burgos, Endangered Species Coordinator, and can be contacted at: Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: Caribbean es@fws.gov or jose cruz-burgos@fws.gov
- Conditions for Puerto Rican Harlequin butterfly applicable to feeders 7402 01, 7403 02, 7702 02, and 7702 34. The Puerto Rican harlequin butterfly (Atlantea tulita) is endemic to Puerto Rico, occurring in the western portion of the island, in the northern karst region, and in the west-central volcanic-serpentine region. The following measures apply to the Puerto Rican harlequin butterfly through its current range: a. The contractor must inform all personnel about the potential presence of the Puerto Rican harlequin butterfly and its host plant, prickly bush (Oplonia spinosa), in the project areas. A pre-work meeting should inform all project personnel about the need to avoid harming this butterfly and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. Educational material (e.g., posters, species).

flyers, or signs with photos or illustrations of all the life stages of the Puerto Rican harlequin butterfly (i.e., eggs, caterpillar, chrysalids, and adult, and its host plant) should be prepared and available to all personnel for reference. b. Before starting any project activity, including removal of vegetation and earth movement, the contractor must clearly delineate the boundaries of the working area in the field to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the Puerto Rican harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the Puerto Rican harlequin butterfly can be observed year-round in all life stages; thus, oviposition (egg-laying) may occur at any time during the year. c. If the prickly bush is present on the project area, but the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species. e. Adult butterflies are often observed flying near the host plant as part of their mating behavior and for laying eggs. Project-related activities must stop if the prickle bush is found in the project area and the Puerto Rican harlequin butterfly is observed flying in that same area. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.

- Conditions for Puerto Rican Harlequin butterfly applicable to feeders 7402 01, 7403 02, 7702 02, and 7702 f. Once the Puerto Rican harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of any eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean es@fws.gov after the 36-hour search is concluded. g. lf, after the initial search or after the 24 to 36-hour search, any life stage of the Puerto Rican harleguin butterfly is found in the prickly bush, take the following actions: o Clearly mark the host plant with flagging tape. o Establish a 10-meter (32-foot) buffer zone around the bush for its protection. o Eggs are typically found on the prickly bush's newly grown, tender branches. Once the egg hatch, the caterpillar moves and feeds throughout the bush. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present. o Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days. h. For all Puerto Rican harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All Puerto Rican harlequin butterfly sighting reports should be sent to the Services Caribbean Ecological Service Field Office at caribbean es@fws.gov. j. For questions regarding the Puerto Rican harlequin butterfly, the Point of Contacts are: o José Cruz-Burgos, Endangered Species Coordinator Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: jose cruz-burgos@fws.gov o Carlos Pacheco, Fish and Wildlife Biologist Mobile: 786-847-5951 Office Direct Line: 939-320-3113 Email: carlos pacheco@fws.gov The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- 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.
- 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.
- 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.
- a. The Subrecipient and/or Subrecipient's contractor shall follow the Low Impact Debris Removal Stipulations (LIDRS) as stated in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Unexpected Discoveries: Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out d. All borrow or fill material must come from preexisting 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.

Additional staging areas and/or work pads within work site area have not been identified yet. The Recipient/Subrecipient and/or private
operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if
any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously
disturbed or hardened surfaces can be provided at close-out.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program** Group 12] (TL/Distribution).

Final Reviews

Final Review

Reviewed By Amaro, Luis N.

Reviewed On 12/18/2024 10:48 AM PST

Review Comments

LNA 12/18/24. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/19/2024 9:31 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$3,664,210.10 for subaward number 107957 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 12/19/2024

General Info

Project #	752808 P/W# 108000	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt [Automation Program Group 19] (TL/Distribution)	Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Incident Start Date	9/17/2017
Completion Date		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 #1310158; FAASt [Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03] (Distribution)

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

- Facility Type: Power generation, transmission, and distribution facilities
- Facility: Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03 (Distribution)
- Facility Description: Transmission and Distribution Automation Program Installation of Intelligent Reclosers, Single Phase Reclosers and Fault Current Indicators Group 19: Feeders 8801-01, 8801-02, 8801-03 (Distribution)
- Approx. Year Built: 1980
- GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

1310158

FAASt [Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03] (Distribution)

Introduction

This document is to submit for approval a Detailed Scope of Work ("SOW"), to COR3 and FEMA, for the Transmission and Distribution Automation Program under DR-4339-PR Public Assistance. The document provides a description of the project, including scope, schedule, and cost estimates. 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 according 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 following the Consent to Federal Funding Letter issued by PREPA and P3A, 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.

Background

In order to rebuild the entire electrical grid, the Transmission & Distribution Automation Program ("Program") installs advanced technology equipment (*i.e.*, reclosers and communicating fault current indicators) to reduce service interruptions to the electrical grid caused by disasterrelated damage. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The strategy is to deploy full automation equipment to the transmission and to the distribution systems. While the individual projects are interconnected and enhance each other, each can also be implemented independent of each other, and each confers benefits independently. The Program includes multiple projects being implemented across the island on both systems. Automation is one of several initiatives to complete final restoration of the transmission and distribution systems. The 3.5 million residents throughout Puerto Rico are dependent upon the successful completion of the Program and its ability to sustain the power grid in future disasters.

Project 752808 is one of the Program's distribution-level projects. It installs hardened poles, advanced technology equipment (specifically three-phase reclosers and communicating fault current indicators), and online protection devices to reduce service interruptions to the distribution grid that could be damage. Implementing the reclosers and communicating fault current indicators is critical for the Energy Management System ("EMS") and related loss of service and potential damages for upcoming occurrences. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders 8801-01, 8801-02, 8801-03.

Key components of this project are (1) pole replacement, (2) the installation of three-phase and single-phase feeder reclosers, and (3) the installation of communicating fault current indicators. Each of these components and their benefit to the grid are described further below:

Pole Replacement to Accommodate the Installation of Reclosers

The addition of three-phase reclosers imposes additional load on poles due to the weight and operational components of the devices, and it also increases the wind area exposed to extreme weather conditions, such as hurricanes, thereby augmenting the structural load these poles must withstand. Pole loading analysis will be used to determine whether a recloser pole and/or pole adjacent to the recloser will maintain structural integrity. If the pole cannot maintain structural integrity, higher-class (strength) structures/poles made of steel or concrete will be installed to comply with codes and standards. This includes adjacent poles (*i.e.*, poles that are on either side of the recloser pole supporting the overhead line conductors). Any new structure and foundation will be designed to LUMA design and industry standards so they can support the pole, recloser and its attachments.

In addition, LUMA is using a per-location approach to pole replacement because of the intricate dynamics of deploying three-phase reclosers. Furthermore, the integration of more connections, switches, and related infrastructure necessitates taller poles to meet phase spacing and circuit-to-circuit spacing requirements. Therefore, LUMA will replace all wood poles where three-phase reclosers are being installed, irrespective of their current condition, to address the compound structural demands and spacing prerequisites and ensure the resilience and reliability of the electrical grid infrastructure.

Feeder Reclosers

Reclosers are sophisticated devices that remotely detect faults within distribution lines, enable the isolation of circuit breakers linked to those faults—whether due to independent failures or breakdowns— and facilitate the swift restoration of power, often within milliseconds. This project will install three-phase and single-phase reclosers on distribution feeders.

Three-Phase Reclosers: A three-phase recloser is a protection device that is used on three-phase distribution feeders with high fault currents at the location. It is a single device with three switches that can open to interrupt fault currents and automatically reclose to restore power. Three-phase reclosers are communication-ready to enable remote control and visualization.

Implementation of reclosers will preserve the continuity of electric services by pre-empting or minimizing power disruptions. The three-phase reclosers can be triggered remotely and provide data back to the operations center, enabling LUMA to prioritize restoration activities, reduce customer outage time, and minimize the potential for cascading infrastructure damage. Installation of the three-phase reclosers and associated hardware is critical for the EMS and associated components to function with full capabilities and to prevent loss of service and potential damages in future disasters.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three-phase recloser, but it does not have the ability to communicate with the EMS. This project will install single-phase reclosers on the distribution feeder and distribution

lines branching from the feeder. It is a protection device that is used on a single-phase or a two-phase distribution feeder. Single-phase reclosers are used on feeders with three-phases if fault currents are low at the location. A single-phase recloser is a single device with one switch that can open to interrupt fault currents and automatically reclose to restore power.

Communicating Fault Current Indicators

Install communicating fault current indicators ("cFCI") at strategic locations to improve the outage management, restoration, and recovery process, specifically by decreasing the time required to detect and locate faults. cFCI operate independent of the feeder reclosers. cFCI helps identify permanent and incipient faults in the distribution system and collect voltage and current data which can be used to detect system imbalance, prevent future issues due to harmonics and help in building a predictive failure models. That data is used by the grid operator to make decisions on operations, management, and restoration. The cFCI can be programmed to send automatic notifications/alarms based on user-set parameters. This allows for quick dispatch of field crews to specific sections of the feeders and reduces the total restoration time during an outage event which saves. Installation of the three-phase reclosers and associated hardware, the communicating fault current indicators (communications ready) are critical for the Energy Management System ("EMS") and associated components to function with full capabilities and to mitigate the loss of service and potential damages in future disasters.

This project is distinguishable from projects where the reclosers are installed on microgrids, such as those in Vieques and Culebra. Microgrids require extremely fast communications that fiber optics can provide; other advanced technologies, such as Phasor Measurement Units, may also require such high-speed/bandwidth communications. That speed/bandwidth is not required on a standard feeder and would significantly increase the cost. LUMA has developed this scope for reclosers and their associated hardware only. cFCIs and reclosers can communicate through a few different modes of communications, so the lack of fiber optics in this scope of work does not prevent or limit the monitoring capabilities of reclosers and cFCIs or the automation capabilities of reclosers. Furthermore, it does not prohibit the incorporation of fiber optics at a later date.

Facilities Description

The facilities listed below are part of the electrical distribution system. All feeders originate

from a substation (start) and serve customers along the

route to various locations (end). The coordinates shown below represent the mainline backbone of each feeder. Please refer to

APPENDIX D – LUMA's Active Projects that show no duplication of scope elements.

Facilities List

Name	Damage Number	Feeder Number	GPS Location
Arecibo	1310158	8801-01	
Arecibo	1310158	8801-02	
Arecibo	1310158	8801-03	

Note: Please refer to APPENDIX C- Project Considerations for a list of all GPS locations that this project will impact.

Project Scope of Work (PCE)

Below is a list of the "Proposed 428 Public Assistance Scope of Work" proposed for Feeders in this project.

Proposed 428 Public Assistance Scope of Work Feeder 8801-01

POLE FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
New Pole		N/A	(50' S8 12- SIDED GAL VANIZED STEEL POLE) (CP-C6-XARM) (REC-2) (K-5)	 Install 50' S8 12-Sided Galvanized steel pole. Install primary framing. Install secondary framing due to three-phase recloser 8801-01A installation. Install (1) three-phase Recloser 8801-01A
19600900		N/A	(K-5) (3/0 TPX (QTY= 85 '))	 Install load side seconda framing due to three-phase recloser 8801-01A
19600737		(ASSY-1509 (QTY=3)) (42''CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	 Remove and dispose of a crossarm. Remove and Dispose fuse fid: 33782260 (qty= and close jumpers due to three-phase recloser 8801-01A installation
19601641		(40' H3 CONCRETE POLE) (CP-C6-XARM) (STL-10) (E-1-2-3(QTY=2)) (F-1-3(QTY=2)) (ASSY- 1509 (QTY=3)) (42''CROSSARM)	(50' S8 12- SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (STL-10) (REC-2-1)	 Remove and dispose of 40' H3 Concrete Pole. Replace with 50' S8 12-sided galvanized steel pole. Replace primary framing. Replace streetlight. Remove and dispose of a crossarm. Install (1) three-phase Recloser 8801-01B. Remove dispose fuses fid: 33781811 (qty=3) due to three- phase Recloser 4 01B installation. Install 1 kva transformer (8.32-4.80kv/120v) from source side.
19602031		(45' H6 CONCRETE POLE) (CP-C5-XARM) (CP-B5-XARM) (CP-A5)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-C5-XARM) (CP-B5-XARM) (CP-A5)	 Remove and Dispose a of 45' H6 Concrete Po Replace with 45' S5.7 12-sided galvanized stepole. Replace primary framings.

POLE FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
			(REC-3-A)	Install (1) Single-Phase recloser 200A
19602112		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	Remove and Dispose fuse fid: 33781521 (qty= due to (1) Single-phase recloser 200a installation
1000042602		(ASSY-1509 (QTY=3))	(REC-3-C)	 Remove and Dispose fuses fid: 33711560 (qty- due to three Single-phase recloser 200A installat Install (3) single-phase recloser 200a in existin S8 steel pole.

1000042601	(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS (QTY=3))	Remove and Dispose fuse fid: 1001733410 (qt due to three (3) Single-Phase recloser 200a installation.
19590943	(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS (QTY=3))	 Remove and Dispose fuse fid: 33710257 (qty=< due to three (3) single-phase recloser 200a installation.
27365725	(35' C5 WOOD POLE) (CP-C6-XARM) (CP-A5) (E-1- 2-3) (F-1-3)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (CP-A5) (REC-3-A)	 Remove and dispose of 35' C5 Wood pole. Replace with 45' S5.7 12-Sided Galvanized sterpole. Replace primary Framings. Remove and dispose downguy. Remove and dispose an anchor. Install (1) Single-phase recloser 200A
27366707	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	Remove and Dispose fuse fid: 33712201 (qty= due to (1) single-phase recloser 200a installation
27365767	(CP-C7) (ASSY- 1509 (QTY=3)) (42''CROSSARM)	CP-C7 (REC-3-C)	 Replace primary framing. Remove and Dispose 42" crossarm. Remove and Dispose fuse fid: 33712115 (qty=3) due to three Single-Phase reck 200A installation. Install (3) Single-Phase Recloser 200A in existing 45' H6 concrete pole.
27366370	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	Remove and Dispose fuse fid: 33714437 (qty=" due to (1)Single-phase recloser 200a installation
27365874	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=3))	Remove and Dispose fuse fid: 33712146 (qty=3) due to three

POLE FID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				(3) single-phase recloser 200a installation.
27367514		(ASSY-1509 (QTY=1))	(REC-3-A)	 Remove and Dispose to (1) single phase recloser 200A installation. Install (3) single-phase recloser 200A in existing 45' S3 steel phase recloser 200A in existing 45' S3 steel
27367618		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	 Remove and Dispose fuse fid: 33712250 (qty=1) due to (1) single-phase recloser 200A installation.
22103272	N/A	(LABOR, cFCI(QTY=3))	Labor to install communicating Fault Currer Indicator.	
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FEEDER 8801-02

	COORDINATE S LAT, LONG			
POLE FID	,	Existing	Install	SCOPE OF WORK
100135937		(45' H4 CONCRETE POLE) (S-6) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2))	(50' S8 12- SIDED GALVANIZED STEEL POLE) (S-6) (REC-2-1)	 Remove and dispose of 45' H4 Concrete Pole. Replace with 50'S8 12-sided galvanized steel pole. Replace primary framing. Remove and dispose downguys. Remove and Dispose anchors. Install 1 kva transformer (4.8/7.62kv- 120v) from source side. Install (1) three-phase recloser 8801-02A o radial circuit.
1001715694		(ASSY-1509 (QTY=2))	(ASSY-1509 (QTY=2)) (ASSY 1505 FIG. B) (CUTOUT BLADES(QTY=2))	 Remove and Dispose fuse fid: 1001715713 (qty=2) Due to three phase recloser 8801-02a installation. Install stand-off bracket assembly. Install cutout blades (qty=2) due to three ph recloser 8801-02a installation.
1001715793		(ASSY-1509 (QTY=2))	(ASSY-1509 (QTY=2)) (ASSY 1505 FIG. B) (CUTOUT BLADES(QTY=2))	 Remove and dispose a fid: 1001715791 (qty=2) due to three phase recloser 8801-02a installation. Install stand-off bracket asse Install cutout blades (qty=2) due to three p recloser 8801-02a installation.
1001715829		(ASSY-1509 (QTY=2))	(ASSY-1509 (QTY=2)) (ASSY 1505 FIG. B)	 Remove and Dispose fuse fid: 1001715827 (qty=2) due to three phase recloser 8801-02a installation.

COOF	RDINATE S T, LONG			
POLE FID	Existing	Install	SCOPE OF WORK	

1000269597	(ASSY-1509 (QTY=6)) (42" CROSSARM)	(CUTOUT BLADES(QTY=2)) (LABOR TO CLOSE JUMPERS(QTY= 6))	 Install stand-off bracket assembly. Install cutout blades (qty=2) due to three phase recloser 8801-02a installation. Remove and dispose crossarm. Remove and Dispose fuse fid: 33600810 (qty=: close jumpers due to three phase recloser 8801-02a installation. Remove and Dispose fuse fid: 1001537978 (qt and close jumpers due to three phase recloser 8801-02a installation.
1000462787	(45 ° H4 CONCRETE POLE) (CP-A6) (CP-B1)	(50' S8 12- SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (REC-2-1)	 Remove and dispose 45 H4 Concrete pole. Replace with 50' S8 12-SIDED GALVANIZED steel pole. Replace primary framing. Install 1 kva transformer (4.8/7.62kv-120v) from source side. Install (1) three-phase recloser 8801-02B on radial circuit.
27371666	(40 ' C3 WOOD POLE) (CP-C3- XARM) (K-6) (E-1-2-3 (QTY=3)) (F-1-3 (QTY=3)) (STL-10) (ASSY-1509 (QTY=3))	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-C3-XARM) (K-6) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (STL-10) (ASSY- 1509 (QTY=3)) (ASSY 1505 FIG. C) (CUTOUT BLADES(QTY=3))	 Remove and dispose of 40' C3 wood pole. Replace with 45' S5.7 12-SIDED GALVANIZED steel pole. Replace primary framing. Replace secondary framing. Remove and dispose downguys. Remove and Dispose anchors. Replace streetlight. Remove and Dispose fuse fid: 33600923 (qty=3) due to three phase recloser 8801-02b installation. Install stand-off bracket assembly. Install cutout blades (qty=3) due to three phase recloser 8801-02B installation
27371093	(35' C4 WOOD POLE) (CP-C6- XARM) (CP- C5-XARM) (ASSY-1509 (QTY=1)) (E-1-2- 3) (F-1-3)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (CP-A5) (REC-3-A)	 Remove and dispose of 35' C4 wood pole. Replace with 45' S5.7 12-SIDED GALVANIZED steel pole. Replace primary framings. Remove and Dispose fuse fid: 33600960 (qty=1) due to (1) single- phase reclos 200a installation. Install (1) single-phase recloser 200A
27371222	(45' S3 STEEL POLE)	(45' S5.7 12- SIDED	Remove and dispose of 45' S3 steel pole.

COORDINATE S LAT, LONG			
POLE FID	Existing	Install	SCOPE OF WORK

	(CP-C6- XARM) (K-7- 4) (STL-10) (T-12) (ASSY-1509 (QTY=3))	GALVANIZED STEEL POLE) (CP-C6- XARM) (K-7-4) (STL-10) (REC-3-C)	 Replace with 45' S5.7 12-SIDED GALVANIZI steel pole. Replace primary framing. Replace secondary framing. Replace streetlight. Remove and Dispose capacitor bank. Remove and Dispose fuse fid: 33601082 (qty=3) due to (3) single- phase rec 200a installation. Install (3) single-phase recloser 200A
27371623	(40° C5 WOOD POLE) (CP-A6) (K-7-B) (STL-10) (T-1) (ASSY-1509)	(45 S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-A6) (K-7-B) STL-10) (T-1) (REC-3-A)	 Remove and Dispose a of 40° C5 Wood pole Replace with 45' S5.7 12-SIDED GALVANIZI steel pole. Replace primary framing. Replace secondary framing. Replace streetlight. Transfer transformer. Remove and Dispose fuse fid: 33600901 (qty=1) due to (1) single- phase rec 200a installation. Install (1) single-phase recloser 200A
27373845	(40' H4 CONCRETE POLE) (CP- B6) (ASSY-1509 (QTY=2))	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-B6- XARM) (E-1-2-3) (F-1-3) (REC-3-B)	 Remove and dispose of 40' H4 concrete pole. Replace with 45' S5.7 12-SIDED GALVANIZI steel pole. Replace primary framing. Remove and Dispose fuse fid: 1001715633 (qty=2) due to two (2) single-pharecloser 200a installation. Install (2) single-phase recloser 200A
1001715916	(ASSY-1509 (QTY=2))	(LABOR TO CLOSE JUMPERS(QTY= 2)	 Remove and Dispose fuse fid: 1001715903 (qty=2) and close jumpers due to two (2) singl phase recloser 200a installation.
1001715914	n/a	(REC-3-A)	 Install (1) single-phase recloser 200A
1001715910	(40' C4 WOOD POLE) (CP-A6) (ASSY-1509) (E-1- 2-3) (F-1-3)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-A6) (REC-3-A)	 Remove and dispose of 40' C4 Wood pole. Replace with 45' S5.7 12-SIDED GALVANIZI steel pole. Replace primary framing. Remove and dispose downguy. Remove and Dispose anchor. Remove and Dispose fuse fid: 1001715908 (qty=1) due to (1)

	COORDINATE S LAT, LONG			
POLE FID		Existing	Install	SCOPE OF WORK
				single-phase recloser 200a installation. • Install (1) single-phase recloser 200A

27368823	(45' C3 WOOD POLE) (CP-A6) (K-7) (E-1-2-3) (F-1-3) (STL-10) (T-1) (ASSY-1509)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (CP-A6) (K-7) (STL-10) (T-1) (ASSY-1509) (ASSY 1505 FIG. A) (CUTOUT BLADES)	 Remove and dispose of 45' C3 wood pole. Replace with 45' S5.7 12-SIDED GALVANIZED stepole. Replace primary framing. Replace secondary framing. Remove and dispose downguy. Remove and Dispose anchor. Replace streetlight. Transfer transformer. Remove and Dispose fuse fid: 3364913 (qty=1) due to (1) single- phase recloser 2 installation. Install stand-off bracket assembly. Install cutout blade due to (1) single- phase reclose recloser 200A installation.
27368312	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY= 1)	Remove and Dispose fuse fid: 1001276694 (qty= and close jumpers due to (1) single-phase recloser 200a installation.
27369149	(35' C4 WOOD POLE) (CP-A6) (K-7-4) (STL-10) (ASSY-1509 (QTY=1))	(45' S5.712- SIDED GALVANIZED STEEL POLE) (CP-A6) (K-7-4) (STL-10) (REC-3-A)	 Remove and dispose of 35' C4 wood pole. Replace with 45' S5.7 12-SIDED GALVANIZED stepole. Replace primary framing. Replace secondary framing. Replace streetlight. Remove and Dispose fuse fid: 33604639 (qty=1) due to (1) single- phase recloser installation. Install (1) single-phase recloser 200A
22103254	N/A	(LABOR, cFCI(QTY=3))	Labor to install communicating Fault Current Indic
27371119	N/A	(LABOR, cFCI(QTY=3)) (ASSY 1509 (QTY=3)) (ASSY 1505 FIG. C) (CUTOUT BLADES(QTY=3))	 Labor to install communicating Fault Current Indic Install standoff bracket assembly. Install cutout blades in cutout fuse assembly.

FEEDER 8801-03



New Pole 19593191	NA (ASSY-1509 (QTY=3))	(50' S8 12-SIDED GALVANZED STEEL FOLE) (OP-06-XARM) (REC-2-1) (LABOR TO CLOSE JUMPERS (QTY=3))	 Install a new 50' S8 12-sided galvanized steel pole. Install primary framing. Install 1 kva transformer (8.32- 4.8kv/120v) fro source side. Install (1) Three-Phase Recloser 8801-03A. Remove and Dispose fuse fid: 1000479677 (qt and close jumpers due to three-phase recloser 8801-03A installation.
19595275	(40' HB CONORETE POLE) (CP-C3- XARM) (42" CROSARM) (STL- 10) (ASSY 1509 (QTY=3)) (E-1-2-3) (F-1-3)	(45' S5.712-SIDED GALVANIZED STEEL POLE) (OP-06-XARM) (STL-10) (REC-3-C)	 Remove and Dispose 40' H3 concrete pole. Replace with 45' S5.7 12-SIDED GALVANZED pole. Replace primary framing. Remove and dispose dow nguys. Remove and Dispose anchors. Replace streetlight. Remove and Dispose 42" crossarm Install (3) single-phase recloser 200A. Remove and Dispose fuse fid: 33712978 (qty=3) due to single-phase recloser 20 installation.
19595971	(35' C4 WOOD POLE) (OP-C6- XARM) (42" CROSARM (STL- 10) (ASSY 1509 (QTY=3)) (E-1-2-3) (F-1-3)	(45' S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (STL-10) (REC-3-C)	 Remove and dispose of 35 C4 Wood pole. Replace with 45' S5.7 12-SIDED GALVANZED pole. Replace primary framing. Remove and Dispose down guys. Remove and Dispose anchors. Replace streetlight. Remove and Dispose 42" crossarm Install (3) single-phase recloser 200A. Remove and Dispose fuse fid: 33713402 (qty=3) due to single-phase recloser 21 installation
12239114	(45 H4 CONCRETE POLE) (CP-C6- XARM) (K-6) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2))	(50' S8 12-SIDED GALVANIZED STEEL POLE) CP-C6-XARM) (K-6) (STL-10) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (REC-3-C)	 Remove and Dispose 45' H4 concrete pole. Replace with 50' S8 12-SIDED GALVANIZED st pole. Replace primary framing. Replace secondary framing. Replace dow nguys. Replace streetlight. Install (3) single-phase recloser 200A.
12239425	(ASSY-1509 (QTY=3)) (42"CROSSA RM)	(LABOR TO CLOSE JUMPERS (QTY=3))	 Remove and dispose of a 42' crossarm Remove and Dispose fuse fid: 33781055 (qty close jumpers due to three (3) single-phase recloser 200A instal

40503050	(60' H6 CONORETE POLE) (0P-06- XARM) (0P-05- XARM)	(60' S8.5 12-SIDED GALVANIZED STEEL POLE) (OP-06-XARM) (OP-C5-XARM)	 Remove and Dispose 60' H6 concrete pole. Replace with 60' S8.5 12-SIDED GALVANZED pole. Replace primary framings. Remove and Dispose 42" crossarm.
19593950		(REC-3-C)	

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
		(ASSY-1509 (QTY=3)) (CROSSARM42")		Remove and Dispose fuse fid: 33712771 (qty=3) due to single-phase recloser 20 installation.
				Install (3) single-phase recloser 200A.
19594032		(ASSY-1509 (QTY=3)) (42"OROSSA RM)	(CUTOUT BLADES(QTY=3)) (ASSY-1509 (QTY=3)) (ASSY-1505 FIG. C)	 Remove and Dispose 42" crossarm Install cutout blades (qty=3) on existing 45' H4 concrete pole due to three (3) single-phase recloser 200A installation. Remove and Dispose fuse fid: 1001467251 (qty=3) due to single-phase recloser 200A installation.
19596535		(35' CONCRETE POLE) (CP-A1) (K-7-4) (STL-10)	(45' S5.7 12-SIDED GALVANIZED STEEL POLE) (OP-A6) (K-7-4) (STL-10) (REC-3-A)	 Remove and Dispose of 35' concrete pole. Replace with 45' S5.7 12-SIDED GALVANZED pole. Replace primary framing. Replace secondary framing. Install (1) single-phase recloser 200A.
19595269		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS (QTY≍3))	 Remove and Dispose fuse fid: 33713687 (qty=1) and close jumpers due to single recloser 200a installation.
22103246		n/a	(LABOR, cFCI (QTY=3))	Labor to install communicating Fault Current Ind
19593241		n/a	(LABOR, cFCI (QTY=3))	Labor to install communicating Fault Current Ind

For more detailed information about the scope of work, please refer to APPENDIX B-LUMA Project Cost Estimate.

Scope Notes:

1) The work will be performed in accordance with the notes below, the Distribution Construction Standards (Concrete Base Standard), the LUMA Overhead Electrical Distribution System Manual V4, and APPENDIX C— Project Considerations.

Pole Replacement

a. Remove and dispose and replace poles, including hardware in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

b. Most pole installations are to replace existing poles in the same location; there are two new pole locations included in this scope of work. Refer to APPENDIX C – Project Considerationscolumn C (soil area and depth impact) for the depths of the poles to be installed.

c. Adjacent poles will be installed, in locations noted in table above, in conformance with LUMA and industry standards.

d. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual within 3' of the existing anchor. The maximum distance an anchor will be installed for a 50' pole is 25' from the base of the pole, within the right-of-way.

e. The brushing of vegetation will be limited to a 10 ' radius that sur12-SIDED GALVANIZEDs the surface of the pole without exceeding the width of the right-of-way. No tree removal will occur as part of this scope. Refer to **APPENDIX C-Project Considerations** for locations where vegetation brushing is anticipated. The vegetation removal process will be managed according to applicable federal and state regulations.

f. All existing overhead conductors, poles, assemblies, and attached components will be disconnected, removed, disposed of, and replaced as outlined in the scope of work. When poles, assemblies, and attached components are not being replaced per the scope of work, all assemblies and components will be re-installed to the pole, with the overhead conductor re-attached to complete the installation and reconstruction of the feeder.

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

2) Debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local regulations.

3) The construction of **access roads** is not required for this scope of work. Poles are close to the roads and are site accessible.

4) **Staging area** requirements were considered for the new equipment to be installed and the equipment to be retired. All materials will be stored and dispatched from the assigned LUMA's Regional Warehouse. The assigned warehouse is the Fajardo District Warehouse, whose address is Marcelino Gotay Avenue, Union Corner, Fajardo, PR. The coordinates are 18.32922, - 65.64667. Refer to the document *Warehouse Locations.*

5) Fill, Gravel, and Sand **materials** will be obtained from an approved supplier as referenced in the document *LUMA Vendor Directory List.*

6) The **equipment** to be used is a Skid Steer, Excavator, Dump truck, Manli', 120- ton Motor Crane, Boom Trucks, 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering

Machine, and Flatbed platform. **Vegetation** will be Remove and Dispose and Dispose and Dispose and Dispose and Dispose dutilizing a *machete, chainsaw electric pruner, telescopic pole pruner, bucket truck, and/or chipper.* All equipment used will comply with Tier 4 EPA Emission Standard, if available.

7) Specific List of Permits Required:

a. Department of Transportation and Public Works - ("DTOP")

Endorsements & Municipality Notifications

- b. Excavation and Demolition Notification in the DTOP
- c. LUMA will provide proof of all permits.

Project Cost Estimate (PCE):

The estimated costs (compliant with Class 3 Accuracy +/-30%) to complete the project are captured in the table(s) 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 to mitigate potential known risks. For more details refer to **APPENDIX B** - **Detailed Cost Estimate**.

	COST ESTIMATE		
COST ELEMENT	428	406	PROJECT TOTAL
PLANNING	\$215,403.95	-	\$215,403.9
MANAGEMENT	\$133,106.70	-	\$133,106.7
Group 19- Arecibo 8801- FY24	\$2,285,307.55	-	\$2,285,307.
GENERAL CONDITIONS	\$144,142.70	-	\$144,142.7
CONTINGENCY	\$324,176.99	-	\$324,176.9
COST TOTALS	\$3,102,137.89	-	\$3,102,137.8
DEDUCTIONS			\$ 0
	FAASt Project # 75	2808 TOTAL	\$2,753,627.2
FAASt ALLOCATIONS	FAASt A&E # 33	5168 TOTAL	\$348,510.6

Project Cost Summary, Version 0:

Work to be Completed (WTBC): \$3,102,137.89

A&E Deduction (Global A&E FAASt 335168): -\$348,510.65

Project Total Cost: \$2,753,627.24

Attachments

Project Notes:

- 1. Refer to the detailed SOW provided in document 752808- DR4339PR- DSOW Group 19- DAUT ARECIBO Rev 01 .pdf
- 2. For reference documents Appendix A through D, see the file labeled:

752808-DR4339PR-APPENDIX A - Initial Scope of Work 752808-DR4339PR-APPENDIX B - Detailed Cost Estimate 752808-DR4339PR-APPENDIX C - Project Considerations 752808-DR4339PR-APPENDIX D - LUMA Active Project

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

406 HMP Scope

406 Hazard Mitigation measures were not requested by the subrecipient for this project in Version 0. However, the mitigation opportunities will be applied in a future version (V1) of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering And Design Services ((v0 Engineering and Design Services, Deduction - PREPA FAASt Global A&E 335168))	1.00	Lump Sum	(\$348,510.65)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (Contract (v0 Contract - PREPA FAASt Donor Project 136271))	1.00	Lump Sum	\$3,102,137.89	Uncompleted

CRC Gross Cost	\$2,753,627.24
Total 406 HMP Cost	\$0.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$2,753,627.24
CRC Net Cost Federal Share (90.00%)	\$2,753,627.24 \$2,478,264.52

Award Information

Version Information

Version	Eligibility	Current	Bundle	Project	Cost	Federal Share	Date
#	Status	Location	Number	Amount	Share	Obligated	Obligated
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 #
0	2/6/2025	\$2,478,264.52	90%	Accepted	4339DRPRP01080001

Subgrant Conditions

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

Insurance

Additional Information

12/2/2024

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 752808

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 \$2,753,627.24

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: <u>Willis Towers Watson</u> (B0804Q1966F17, B0804Q14312F17, B0804Q19673F17, B0804Q19672F17, B0804Q18529F17, B0804Q14312F17, B0804Q19674F17, B0804Q18411F17, B0804Q14310F17, B0804Q11038F17, B0804Q14507F17, B0804Q14312F17)

Mapfre Praico Insurance Company (1398178000644)

<u>Multinational Insurance Company</u> (88-CP-000307831-2, 88-CP-000318673-0, 88-CP-000318674-0, 88-CP-000318675-0, 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) #1310158:

FAASt [Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03] (Distribution)

Location: Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03 (Distribution)

GPS Coordinates:

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: CRC Gross Cost \$2,753,627.24

-

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 [Automation Program Group 19: Arecibo Feeders 8801-01, 8801-02, 8801-03] (Distribution) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

. . .

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Automation Program Group 19] (TL/Distribution).

406 Mitigation

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

- The Applicant shall ensure best management practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. To ensure that wetlands are not adversely impacted, per the Clean Water Act and Executive Order 11990, equipment storage and staging of construction materials and machinery must be in a location that would prevent erosion and sedimentation.
- 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project. 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harm s way as the result of the habitat disturbance (see #6), 4, For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6).
- 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior. 6. If any PR or VI boa (dead or alive) is found within the Action Area and on harm's way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested) at least 1km from the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project starts and sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process. 7. Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. - Any heavy machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the heavy machinery. If a PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. - The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. - In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. - If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. - Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. For questions and to submit reports, the Service's Point of Contact (POC) is José Cruz-Burgos, Endangered Species Coordinator, and can be contacted at: . Mobile: 305-304-1386 . Office phone: 786-244-0081 . Office Direct Line: 939-320-3120 . Email: Caribbean es@fws.gov or jose cruz-burgos@fws.gov
- 34. The Puerto Rican harleguin butterfly (Atlantea tulita) is endemic to Puerto Rico, occurring in the western portion of the island, in the northern karst region, and in the west-central volcanic-serpentine region. The following measures apply to the Puerto Rican harlequin butterfly through its current range: a. The contractor must inform all personnel about the potential presence of the Puerto Rican harlequin butterfly and its host plant, prickly bush (Oplonia spinosa), in the project areas. A pre-work meeting should inform all project personnel about the need to avoid harming this butterfly and its occupied host plant. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. Educational material (e.g., posters, flyers, or signs with photos or illustrations of all the life stages of the Puerto Rican harlequin butterfly (i.e., eggs, caterpillar, chrysalids, and adult, and its host plant) should be prepared and available to all personnel for reference. b. Before starting any project activity, including removal of vegetation and earth movement, the contractor must clearly delineate the boundaries of the working area in the field to avoid unnecessary habitat impacts. Once the project areas are clearly marked, and before any work activity, including site preparation, personnel with knowledge and ability to identify the Puerto Rican harlequin butterfly (all life stages) and the prickly bush must survey the areas where the work will be performed for the presence of the species and its host plant. It is important to note that the Puerto Rican harlequin butterfly can be observed year-round in all life stages; thus, oviposition (egg-laying) may occur at any time during the year. c. If the prickly bush is present on the project site, try to avoid cutting the plant, even if no eggs, caterpillars, or chrysalids are present. d. If there is no prickly bush within the project area, but the butterfly is observed flying within the project area, do not harass, harm, pursue, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, the species. e. Adult butterflies are often observed flying near the host plant as part of their mating behavior and for laying eggs. Project-related activities must stop if the prickle bush is found in the project area and the Puerto Rican

harlequin butterfly is observed flying in that same area. A temporary 50-meter (164 feet) buffer zone of no activity or human disturbance should be established and clearly marked around that prickly bush until the butterfly moves out on its own.

- f. Once the Puerto Rican harlequin butterfly has moved away, within a period of 24 to 36 hours, a search of the prickly bush that has been buffered should be conducted to determine the presence of any eggs, caterpillars, or chrysalids of the butterfly on the plant. The contractor or the Applicant should send a report of the observation and its findings to caribbean es@fws.gov after the 36-hour search is concluded, q. If, after the initial search or after the 24 to 36-hour search, any life stage of the Puerto Rican harlequin butterfly is found in the prickly bush, take the following actions: o Clearly mark the host plant with flagging tape. o Establish a 10meter (32-foot) buffer zone around the bush for its protection. o Eggs are typically found on the prickly bush's newly grown, tender branches. Once the egg hatch, the caterpillar moves and feeds throughout the bush. Therefore, avoid cutting off the prickly bush within the project site even if no eggs, caterpillars, or chrysalids are present. o Work within the 10-meter buffered area may resume when no signs of any live life stage of the butterfly are detected, which usually takes approximately 60 to 120 days. h. For all Puerto Rican harlequin butterfly sightings (all life stages), the time and date of the sighting and the specific location where the butterfly was found must be recorded. Data should also include a photo of the butterfly (if possible) and the habitat where it was observed, site GPS coordinates, and comments on how the butterfly was detected and its behavior. All Puerto Rican harlequin butterfly sighting reports should be sent to the Service�s Caribbean Ecological Service Field Office at caribbean es@fws.gov. j. For questions regarding the Puerto Rican harlequin butterfly, the Point of Contacts are: o José Cruz-Burgos, Endangered Species Coordinator: Mobile: 305-304-1386. Office phone: 786-244-0081. Office Direct Line: 939-320-3120. Email: jose cruzburgos@fws.gov o Carlos Pacheco, Fish and Wildlife Biologist. Mobile: 786-847-5951. Office Direct Line: 939-320-3113. Email: carlos pacheco@fws.gov
- Additional staging areas and/or work pads within work site area haven't been identified yet. The Recipient/Subrecipient and/or
 private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available
 specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined
 to hardened surfaces can be provided at close-out.

EHP Additional Info

There is no additional environmental historical preservation on FAASt [Automation Program Group 19] (TL/Distribution).

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L.

Reviewed On 12/31/2024 8:24 AM PST

Review Comments

Project has been reviewed, found eligible and reasonable. Subrecipient is responsible for complying with all grants and subgrant conditions. - CLG 12.31.24

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 01/14/2025 5:24 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward

based on a Fixed Cost Offer in the amount of \$2,753,627.24 for subaward number 108000 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas

Signed On 01/15/2025

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	752810 P/W# 108001	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt [Automation Program Group 20]	Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Incident Start Date	9/17/2017
Completion Date		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 #1313024; FAASt [Automation Program Group 20: Caguas Feeders 2601-01, 2601-03, 2602-02] (Distribution)

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

General Facility Information:

- Facility Type: Power generation, transmission, and distribution facilities
- Facility: Automation Program Group 20: Caguas
- Facility Description: Automation Program Underground Transmission Group 20: Caguas Feeders 2601-01, 2601-03, 2602-02 (Distribution)
- Approx. Year Built: 1970
- GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

1313024

FAASt [Automation Program Group 20: Caguas Feeders 2601-01, 2601-03, 2602-02] (Distribution)

Introduction

This document is to submit for approval a Detailed Scope of Work ("SOW") to COR3 and FEMA for the Transmission and Distribution Automation Program under DR-4339-PR Public Assistance. The document provides a description of the project, including scope, schedule, and cost estimates. 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 according 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 following the Consent to Federal Funding Letter issued by PREPA and P3A, which collectively provides the necessary consent for LUMA Energy, as an agent of PREPA, to undertake work in connection with any Federal Funding requests related to the Transmission and Distribution System submitted to FEMA.

Background

In order to rebuild the entire electrical grid, the Transmission & Distribution Automation Program ("Program") i n s t a 1 l s advanced technology equipment (i.e., reclosers and communicating fault current indicators) to reduce service interruptions to the electrical grid caused by disaster-related damage. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The strategy is to deploy full automation equipment to the transmission and to the distribution systems. While the individual projects are interconnected and enhance each other, each can also be implemented independent of each other, and each confers benefits independently. The Program includes multiple projects being implemented across the island on both systems. Automation is one of several initiatives that will complete the final restoration of the transmission and distribution s y s t e m s . The 3.5 million residents throughout Puerto Rico are dependent upon the successful completion of the Program and its ability to sustain the power grid in future disasters.

Project 752810 is one of the Program's distribution-level projects. It installs hardened poles, advanced technology equipment (specifically three-phase reclosers and communicating fault current indicators), and online protection devices to reduce service interruptions to the distribution grid that could be caused by disaster-related damage. Implementing the three- phase reclosers and communicating fault current indicators is critical for the Energy Management System ("EMS") and related components to function at their full capabilities and mitigate loss of service and potential damages for upcoming occurrences. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders 2601-01, 2602-02, 2601-03, and 2702-01.

Key components of this project are (1) pole replacement, (2) the installation of three-phase and single-phase reclosers, and (3) the installation of communicating fault current indicators. Each of these components and their benefit to the grid are described further below:

Pole Replacement to Accommodate the Installation of Reclosers

The addition of three-phase reclosers impose additional load on poles due to the weight and operational components of the devices and it also increase the wind area exposed to extreme weather conditions, such as hurricanes, thereby augmenting the structural load these poles must withstand. Pole loading analysis will determine whether a recloser pole and/or pole adjacent to the recloser will maintain structural integrity. If the pole cannot maintain structural integrity, higher-class (strength) structures/poles made of steel or concrete will be installed to comply with codes and standards. This includes adjacent poles (i.e., poles on either side of the recloser pole supporting the overhead line conductors). Any new structure and foundation will be designed to LUMA design and industry standards to support the pole, recloser and its attachments.

In addition, LUMA is using a per-location approach to pole replacement because of the intricate dynamics of deploying three-phase reclosers. Furthermore, the integration of more connections, switches, and related infrastructure often necessitates taller poles to meet phase spacing and circuit-to-circuit spacing requirements. Therefore, LUMA willreplace all wood poles where three-phase reclosers are being installed, irrespective of their current condition, to address the compound structural demands and spacing prerequisites, and ensure the resilience and reliability of the electrical grid infrastructure.

Feeder Reclosers

Reclosers are sophisticated devices that remotely detect faults within distribution lines, enable the isolation of circuit breakers linked to those faults—whether due to independent failures or breakdowns— and facilitate the swift restoration of power, often within milliseconds. This project will install three-phase and single phase reclosers on distribution feeders.

Three-Phase Reclosers: A three-phase recloser is a protection device used on three- phase distribution feeders with high fault currents at the location. It is a single device with three switches that can open to interrupt fault currents and automatically reclose to restore power. Three-phase reclosers are communication-ready to enable remote control and visualization.

Implementing reclosers will preserve the continuity of electric services by pre-empting or minimizing power disruptions. The three-phase reclosers can be triggered remotely

and provide data back to the operations center, enabling LUMA to prioritize restoration activities, reduce customer outage time, and minimize the potential for cascading infrastructure damage. Installation of the three-phase reclosers and associated hardware is critical for the EMS and associated components to function with full capabilities and to prevent loss of service and potential damages in future disasters.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three-phase recloser, but it does not have the ability to communicate with the EMS. This project will install single-phase reclosers on the distribution feeder and distribution feeder. Single-phase reclosers are used on feeders with three phases if fault currents are low at the location. A single-phase recloser is a single device with one switch that can open to interrupt fault currents and automatically reclose to restore power.

Communicating Fault Current Indicators

Install communicating fault current indicators ("cFCI") at strategic locations to improve the outage management, restoration, and recovery process, specifically by decreasing the time required to detect and locate faults. cFCI operate independent of the feeder reclosers. cFCI help identify permanent and incipient faults in the distribution system and collect voltage and current data which can be used to detect system imbalance, prevent future issues due to harmonics and help in building a predictive failure models. That data is used by the grid operator to make decisions on operations, management and restoration. The cFCI can be programmed to send automatic notification/alarms based on user set parameters. This allows for quick dispatch of field crews to specific sections of the feeders and restoration time during an outage event which saves. Installation of the three-phase reclosers and associated hardware, the communicating fault current indicators (communications ready) are critical for the Energy Management System ("EMS") and associated components to function with full capabilities and to mitigate the loss of service and potential damages in future disasters.

In a meeting between LUMA and FEMA, held in July 2024, FEMA asked how LUMA will provide full automation capabilities to the components in this project if fiber optic cable is not used, like LUMA proposed for the Vieques and Culebra Mircrogrids. This project is distinguishable from projects where the reclosers are installed on microgrids, such as those in Vieques and Culebra. Microgrids require extremely fast communications that fiber optics can provide; other advanced technologies such as Phasor Measurement Units may also require such high speed/bandwidth communications. That speed/bandwidth is not required on a standard feeder and would significantly increase the cost. LUMA has developed this scope for reclosers and their associated hardware only. cFCIs and reclosers can communicate of communications, so the lack of fiber optics in this scope of work does not prevent or limit the monitoring capabilities of reclosers and cFCIs or the automation capabilities of reclosers. Furthermore, it does not prohibit the incorporation of fiber optics at a later date.

Facilities Description

The facilities listed below are part of the electrical distribution system. All feeders originate from a substation (start) and serve customers along the route to various locations (end). The

coordinates shown below represent the mainline backbone of each feeder. Please refer to the **Appendix D** - LUMA Active Projects to show no duplication of scope elements.

Facilities List

Name	Damage Number	Feeder Number	GPS Location
Caguas	1313024	2601-01	
Caguas	1313024	2601-03	
Caguas	1313024	2602-02	

Caguas 1313024 2702-01	
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Note: Please refer to Appendix C --- Project Considerations for a list of all GPS locations to be impacted by this project.

Below is a list of the "Proposed 428 Public Assistance Scope of Work" proposed for Feeders in this project.

Proposed 428 Public Assistance Scope of Work

Feeder 2601-01

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
NEW POLE		(NONE)	(60'-S8 GALVANZED STEEL POLE) (OPS OP-08) (S-6) (REC-2-2) (K-6)	Install new 60'-S8 12-sided galvanized steel pole in new location
				mid span*. • Install (1) Three-Phase recloser 2601- 01A on a radial

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				configuration. Install (1) 1kva transformer to feed sou side
10351462		(45C3 WOOD POLE) (S-1) (K-6)	(50-S8 12-SIDED GALVANZED STEEL POLE) (S-6) (REC-2-2) (K-6) (E-1-2-3) (F-1-3)	 Remove and dispose of the 45' C3 wood pole. Replace with a 50' S8 12-sided galvanized steel pole. Install (1) down guys. Install (1) anchor. Use existing secondary conductor to fe source side. Install (1) Three-Phase Recloser 2601-(B on a radial configuration.
NEW POLE		(NONE)	(50'-S8 12-SIDED GALVANIZED STEEL POLE) (CP- 06 XARM) (REC-2) (K-6) (87FT 1/0 TPX AL (NERTINA)))	 Install new 50'-S8 12-sided galvanized steel pole in new location mid span*. Install Three-Phase Recloser 2601-01 C on a radial configuration. Install 87ft of secondary 1/0 tpx al (nertina) For source side.
10357297		(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse (fid:10861277) due to three-phase reclose 2601-01B Installation.

10359335	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse (fid:10864765) due to three- recloser 2601-01C Installation.
10352712	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse due to three phase recloser 2601-01 C installation.
1000522388	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse (fid: 1002046628) due to being located in the Mainline.
10361043	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse (fid:1001303970) due to three- phase 2601-01 c Installation.
10352708	(45-C3 WOOD POLE) (S-4- XARM) (CP- B5 XARM) (ASSY 1509 (QTY=2)) (K- 5) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (STL-10)	(50' S8 12- SIDED GALVANZED STEEL POLE) (REC-3-B) (S-6) (CP-B5 XARM) (K-5) (E-1-2-3) (F-1-3) (STL-10)	 Remove and dispose of a 45' C3 wood pole. Replace with 50' S8 12-Sided Galvanized steel pole. Install (2) Outout mounted Single- Phase Recloser on pole fid 10352708. Remove (2) down guy. Remove (2) anchor. ` Install (1) down guy. Install (1) anchor. Fuse (fid:10862287) removal due to cu mounted single-phase recloser installation pole fid 10352708. Replace streetlight.
10354083	(40'-C5 WOOD POLE) (OP-A6) (E- 1-2-3) (F-1-3)	(45° S5.7° 12- SIDED GALVANIZED STEEL POLE) (OP- A6) (REC-3-A)	 Remove and dispose of 40' C5 w ood pole. Replace with 45'-S5.7 12-Sided galvanized steel pole. Install (1) cutout mounted single-

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				phase recloser on pole fid 10354083.
				• Remove (1) down guy.
				Remove (1) Anchor.

10354093	(40-C5 WOOD POLE) (CP-A6) (E- 1-2-3) (F-1-3) (K-7 B) (STL-10)	(45' S5.7 12-SIDED GALVANZED STEEL POLE) (CP- A3) (E-1-2-3) (F-1-3) (K-7 B) (STL-10)	 Remove and dispose of a 40'C5 wood pole. Replace with 45' S5.7 12-sided galvanized steel pole due to cutout mounted single-phase recloser (qty=1) installation or pole fid 10354083. Replace (1) down guy. Replace (1) anchor. Replace Streetlight.
10360709	(45'-C3 WOOD POLE) (S-6) (CP-B5 XARM) (E-1-2-3) (F-1-3) (K-7 B) (STL-10) (ASSY 1509 (QTY=2))	(45'-S5.7 12-SIDE GALVANZED STEEL POLE) (REC-3-B) (S-6) (OP-B5 XARM) (E-1-2-3) (F-1-3) (K-7-B) (STL-10)	 Remove and dispose of 45'C3 wood pole. Replace with 45' S.7 12-sided galvanized steel pole. Install (2) cutout mounted single- phase recloser on pole fid 10360709. Replace (1) anchor. Replace streetlight assembly. Fuse (fid:10864765) removal due to cutout mounted single-phase recloser (qty=2) installation on pole fid 10360709.
10361952	(35-C4 WOOD POLE) (S-5) (CP- B5 XARM) (K-7 A) (K-5) (E-1-2-3(QTY=2)) (F-1-3(QTY=2)) (STL- 10)	(45' S5.7 12- SIDED GALVANIZED STEEL POLE) (S-5) (OP-B5 XARM) (REC-3-B) (K-7 B) (E-1-2-3) (F-1-3) (STL-10)	 Remove and dispose of 35' C4 wood pole. Replace with 45' S5.7 12-sided galvanized steel pole. Install (2) cutout mounted single- phase recloser on pole fid 10361952. Remove (2) down guys. Remove (2) anchors. Install (1) down guy. Install (1) anchor. Replace Streetlight.
10362263	(ASSY 1509 (QTY=2))	(LABOR & REPAIR)	Remove and dispose Fuse (fid: 10867932) due to cutout mounted single-ph recloser installation on pole Fid:10361952.
10354213	(ASSY 1509 (QTY=1))	(LABUK & REPAIR)	 Remove and dispose Fuse (fid: 10864754) due to cutout mounted single-ph recloser installation on pole fid:10354083.
10362927	(ASSY 1509 (QTY=2))	(LABOR & REPAIR)	 Remove and dispose Fuse (fid: 10866288) due to cutout mounted single-phase recloser installation on pole fid:10361952.
10354512	(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	Remove and dispose Fuse (fid: 10864748) due to cutout mounted single-ph recloser installation on pole fid:10354083.
None	None	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Current Indicator in segment

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				6673763.
None		None	(LABOR, cFO) (QTY=3)	Labor to install communicating Fault Ourrent Indicator in segment 10868121.
1000522670		(50'H4 CONCRETE	(50' S8 12-SIDED	Remove and dispose 50' H4 Concrete Pole.
1000322079		POLE)	GALVANIZED STEEL POLE)	 Replace with 50' S8 12-Sided Galvanized steel pole. Install switch due to cFCI installation.
		(S-6-2)	(ABS-3-XARM)	Replace streetlight.
		(K-7-4) (STL- 10)	(S-6-2)	• Install (2) dow nguys.
			(K-7 B)	Install (1) anchor.
			(K-5)	
			(E-1-2-3 (QTY=2)) (F-4-2)	
	1	1	(SIL-10)	

Feeder 2601-03

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
1001734430		(45 H4 CONCRETE POLE) (S-6) (ASSY 1509(QTY=3)) (STL-10) (K-6) (K-5)	(50' S8 12-SIDED GALVANIZED STEEL FOLE) (S-6) (REC-2-2 Ver 3.) (STL-10) (K-6) (K-5)	 Remove and dispose of 45' H4 concrete pole. Replace with 50' S8 12-Sided galvanized steel pole. Replace primary and Secondary framing. Remove fuse fid 10954590 (qty=3). Install (1) Three-Phase recloser 2601-03 A. Install (1) 1 kva transformer (4.80/8.32 kv - 120/240 v) for source side. Use existing secondary conductor as Power supply for recloser load side. Replace streetlight.
7102218		40' H4 CONCRETE POLE) (K-6) (STL-10)	(50' S8 12- SIDED GALVANIZED STEEL POLE) (S-6) (REC-2-2 Ver. 3) (STL-10) (K-6)	Remove and dispose of 40' H4 Concrete pc Replace with 50' S8 12-Sided Galvanized s pole. Replace primary and Secondary framing. Install (1) Three-Phase Recloser 2601-03 E Install (1) 1 kva transformer (4.80/8.32 kv- 120/240 v) for load side. Use existing secondary conductor as Power supply for recloser source side. Replace streetlight. Install spacer starting at 60 inches frompol top.
7103730		(ASSY 1509 QTY=1))	(LABOR & REPAIR)	Remove and dispose Fuse fid 10951948 (qty=1) due to three-

			phase recloser 2601-03 a installation.
None	None	(LABOR, cFCI) (QTY=3)	 Labor to install communicating Fault Ourre indicator in segment 6673772.
None	None	(LABOR, cFO) (QTY=3)	Labor to install communicating Fault Ourrent indicator in segment 10955688

Feeder 2602-02

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
7212183		(40'-C2 WOOD FOLE) (S-3) (K-7 B) (E-1-2-3 (QTY = 1)) (F-1-3 (QTY =1))	(50' S8 12-SIDED GALANIZED STEEL POLE) (S-6) (REC-2-2 VER3) (K-7-4) (K-6) (E-1-2-3 (QTY = 1)) (F-1-3 (QTY =1))	 Remove and dispose of a 40' C2 wood pole Replace with 50' S8 12-sided Galvanized S Pole. Install (1) Three-Phase recloser 2602-02A. Install (1) 1 kva transformer (2.40/4.16 kv - 120/240 v) for source side Radial configuration. Replace (1) Anchor. Replace (1) down guy.
7211855		(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose Fuses (fid: 8431971) due to t hr ee - p h as e reck A installation.
7212343		(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuses (fid: 8432015) due to t hr ee - p h as e recloser A installation.
7213634		(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuses (fid: 8432561) due to three- phase recloser A installation.
7936496		(45'-C3 WOOD POLE) (OP-A6) (K-7 B)	(45' S5.7 12-SDED GALVANZED STEEL POLE) (REC-3-A) (OP-A6) (K-7 B)	Remove and dispose of a 45' C3 w ood pole Replace with 45' S5.7 12-sided galvanized pole. Install Qutout mounted Single- Phase reclose OVR-A
7212941		(40'-S3 GALVANZED STEEL POLE) (CP-A6) (K-7 A) (STL-10)	(45' S5.7 12-SDED GALVANIZED STEEL POLE) (OP-A6) (K-7 A) (STL- 10) (REC-3)	Remove and dispose of 40' S3 galvanized s pole. Replace with 45' S5.7 12-Sided galvanized pole. Install Outout Mounted Single- Phase reclose OWR-B. Replace complete streetlight assembly.
7936127		(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	Remove and dispose FUSES (FID: 8431378) due to single- phase CVR- A Installation.

7936501		(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	Remove and dispose FUSES (FID: 8431947) due to single- phase OVR- A Installation.
1002011550	18.126131,	(ASSY 1509	(LABOR & REPAIR)	Remove and dispose FUSES

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
		(QTY=1))		(FID: 1002011558) due to s in g Ie - p has e CMR-B Installa
7213095		(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	Remove and dispose FUSES (FID: 8432944) due to single- pha- CVR-B Installation.
7213607		(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	Remove and dispose FUSES (FID: 8432726) due to single- pha- OVR-B Installation.
None		(NONE)	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Current Indic cFCI in segment 7114242.
None		(NONE)	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Current Indic cFCI in segment 8432625.
8432625		50-С2 WOOD POLE) (СР-С6 ХАРМ) (К-7 В) (STL-10) (Е-1-2-3) (F-1-3)	(50' S8 12-SIDED GALVANZED STEL POLE) (CP- C6-XARM) (ABS-3-XARM) (K-7 B) (STL-10) (E-1-2-3) (F-1-3) (T-1) (37.5KVA,2.40/4.16 KV - 120/240 V)	 Remove and dispose of 50' C2 w pole. Replace with 50' S8 12-sided Galvanized Steel Pole. Install air breaker switch. Replace streetl i g h t . Replace transformer (37.5kva, 2.40/4.16 kv - 120/240 v).

Feeder 2702-01

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK

NEWPOLE	(NONE)	(70'-S8 GALVANZED STEEL POLE) (38KV VERTICAL SUSPENSION) (OP-06 XARM) (REC-2-2 VERS. 3))	 Install new galvanized 70'-S8 1: sided galvanized pole in new locar mid span*. Install transmission assembly. Install (1) Three-Phase Recloser 2702-01 A. Install (2) 1kva (4.80/8.32 kv) transformer for source side and load side.
7117414	(50/H6 CONCRETE FOLE) (38kV DEADEND- SC- VERTICAL DEADEND ASSY 10-60) (CP-C1) (CP-A5)	70'-S8 12-SIDED GALVANZED STEEL POLE) (38kV DEADEND-SC- VERTICAL DEADEND ASSY 10-60) (CP-C1) (CP-A5) (E-1-2-3(QTY-2)) (F 4-2)	 Remove and dispose of 50' H6 concrete pole. Replace with pole 70'-S8 12- Side galvanized steel pole. Due to installation of recloser 270, 01 A, replace transmission assemb Replace primary framing. Install (2) dow nguys. Install (1) Anchor
10650343	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	Remove and dispose Fuse (fid:8455275) due to t hr ee - p h as e recloser 2702-01A

POLEFID	COORDINATES LAT, LONG	Existing	Install	SCOPE OF WORK
				installation.
1001756465		(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose Fuse (fid:8456247) due to t hr ee - p h as e recloser 2702-01 a installation.
7157370		(65'-H6 CONCRETE POLE) (38KV VERTICAL SUSPENSION) (S-1)	(70' S8 12-SIDED GALVANIZED STEEL POLE) (38KV VERTICAL SUSPENSION) (S-6) (REC-3-C)	 Replace concrete pole with 70'- S8 12-Sided galvanized steel pole. Install (3) single-phase recloser OVR-A. Replace primary framing.
NEWPOLE		(NONE)	(45-S5.7 12-SIDED GALVANIZED STEEL POLE) (OP-B6 XARM) (REC-3 B)	 Install new galvanized steel pole 45-S5.7 1 sided galvanized steel pole in new location mi span*. Install (2) single-phase recloser OVR-B. Replace primary Framing
7118030		(FUSE REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose Fuse (fid: 8453128) due ingle- phase CMR-B installation.

7116210	(FUSE REMOVAL (QTY=3)) (FUSE REMOVAL (QTY=3))	(LABOR & REPAIR) (LABOR & REPAIR)	Remove and Fuse (fid:8453141) removal due single-phase CM R - B installation. Remove and dispose Fuse (fid:8453311) due to single- phase OVR-A installation.
7118824	(35' C4 WOOD FOLE) (AC-C3 XARM) (STL-10)	(45-S5.7 12-SIDED) GALVANIZED STEEL POLE) (0P-C3	Remove and dispose of 35' C4 wood pole. Replace with 45' S5.7 12-Sided galvanized st
	(E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (K-7 B)	(ABS-3-XARM) (ABS-3-XARM) (STL-10) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (K-7 B)	 Replace with 45 33.7 12-30ed gaivanized strole. Install switch A due to cFO installation. Replace street light assembly. Replace (2) Down guys. Replace (2) anchors.
None	None	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Ourrent indicator cFO in segment 6724656.
None	None	(LABOR, cFCI) (QTY=3)	Labor to install communicating Fault Ourrent indicator cFO in segment 845405

Scope Notes:

1) This version of the project will be fully funded using PA 428 funds. A future version of this project may contain PA 406 using the onetime change waiver, as per the applicant representative's request.

2) The work will be performed in accordance with the notes below, the Distribution Construction Standards (Concrete Base Standard), LUMA Overhead Electrical Distribution System Manual V4, and **APPENDIX C – Project Considerations**.

Pole Replacement

a. Remove and replace poles, including hardware in the same location. If unable to install the replacement, the pole will be installed within 3 feet of the same location.

b. Most pole installations are to replace existing poles at the same location; there are four new pole locations included in this scope of work. Refer to **APPENDIX** C – **Project Considerations** column C (soil area and depth impact) for the depths of the poles to be installed.

c. Adjacent poles will be installed, in locations noted in the table above, in conformance with LUMA and industry standards.

d. New guy wire/anchors will be installed according to the LUMA Overhead Electrical Distribution System Manual within 3ft of the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.

e. The brushing of vegetation will be limited to a 10 ft radius that surrounds the surface of the pole without exceeding the width of the right-of-way. No tree removal will occur as part of this scope. Refer to **APPENDIX C- Project Considerations** or locations where vegetation brushing is anticipated. The

vegetation brushing process will be managed according to applicable federal and state regulations.

f. All existing overhead conductors, poles, assemblies, and attached components will be disconnected, removed, disposed and replaced as outlined in the scope of work. When poles, assemblies, and attached components are not being replaced per the scope of work, all assemblies and components will be re-installed to the pole, with the overhead conductor re-attached to complete the installation and reconstruction of the feeder.

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

3) Debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local regulations.

4) The construction of **access roads** is not required for this scope of work. Poles are close to the roads and are site accessible.

5) **Staging area** requirements were considered for the new equipment to be installed and the equipment to be retired. All materials will be stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse assigned is the Caguas Regional Warehouse, whose address is Carretera # 1 Jose Mercado Corner, Caguas, PR. Coordinates are **Example 1**. Refer to document *Warehouse Locations*.

6) Fill, Gravel, and Sand**materials** will be obtained from an approved supplier as referenced in the document *LUMA* Vendor Directory List.

7) The **equipment** to be used is a Skid Steer, Excavator, Dump truck, Manlift, 120- ton Motor Crane, Boom Trucks, 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine, and Flatbed platform. **Vegetation** will be cleared utilizing a machete, chainsaw electric pruner, telescopic pole pruner, bucket truck, and/or chipper. All equipment used will comply with Tier 4 EPA Emission Standard, if available.

8) Specific List of Permits Required:

a. Department of Transportation and Public Works - (DTOP)

Endorsements & Municipality Notifications

b. Excavation and Demolition Notification in the DTOP

c. LUMA will provide proof of all permits.

Project Cost Estimate (PCE)

The estimated costs (compliant with Class 3 Accuracy +/-30%) to complete the project are captured in the table(s) 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 to mitigate potential known risks. For more details refer to **APPENDIX B- Detailed Cost Estimate**.

COST ESTIMATE				
COST ELEMENT	428	406	PROJECT TOTAL	
PLANNING	\$206,974.47	-	\$206,974.47	
MANAGEMENT	\$126,721.23	-	\$126,721.23	
Group 20- DAUT CAGUAS	\$2,178,563.01	-	\$2,178,563.0	

GENERAL CONDITIONS	\$133,727.36	-	\$133,727.36
CONTINGENCY	\$310,971.71	-	\$310,971.71
COST TOTALS	\$2,956,957.78	-	\$2,956,957.78
DEDUCTIONS		\$ 0	
		RECEIVED	
	FAASt Project # 75	\$2,623,262.08	
FAASt ALLOCATIONS	FAASt A&E # 33	\$333,695.70	

FEMA Project Cost Summary, Version 0

Work to be Completed (WTBC): \$2,956,957.78

A&E Deduction (Global A&E FAASt 335168: -\$333,695.70

Project Total: \$2,623,262.08

Attachments:

Project Notes:

1. Refer to the detailed SOW provided in document 752810- DR4339PR- DSOW Group 20- DAUT.pdf

2. For Cost Estimate detailed information, refer to documents/attachments labeled: 752810-DR4339PR-APPENDIX B- DETAIL COST ESTIMATE.xlsx

3. For reference documents Appendix A through D, see the file labeled:

APPENDIXA - Initial Scope of Work

APPENDIX B - Detailed Cost Estimate

APPENDIX C - Project Considerations

APPENDIX D - LUMA's Active Projects

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

5. This project is part of Donor FAASt 136271 - MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.

406 HMP Scope

406 Hazard Mitigation measures were not requested by the subrecipient for this project in Version 0. However, the mitigation opportunities will be

applied in a future version (V1) of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 (Engineering and Design Services (FAAST Project 335168))	1.00	Lump Sum	(\$333,695.70)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 (v0 Contract (FAAST Project 136271))	1.00	Lump Sum	\$2,956,957.78	Uncompleted

CRC Gross Cost	\$2,623,262.08
Total 406 HMP Cost	\$0.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$2,623,262.08
CRC Net Cost Federal Share (90.00%)	\$2,623,262.08 \$2,360,935.88

Award Information

Version Information

Version	Eligibility	Current	Bundle	Project	Cost	Federal Share	Date
#	Status	Location	Number	Amount	Share	Obligated	Obligated
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 #
0	2/6/2025	\$2,360,935.88	90%	Accepted	4339DRPRP01080011

Subgrant Conditions

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

Insurance

Additional Information

11/26/2024

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 752810

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 \$2,623,262.08

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: <u>Willis Towers Watson</u> (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-CP-000318674-0, 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) #1313024:

FAASt [Automation Program Group 20: Caguas Feeders 2601-01, 2601-03, 2602-02] (Distribution)

Location: Automation Program Group 20: Caguas

GPS Coordinates:

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: CRC Gross Cost \$2,623,262.08

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

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Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt [Automation Program Group 20: Caguas Feeders 2601-01, 2601-03, 2602-02] (Distribution) because the facility does not meet the definition of building, equipment, contents, or vehicle.

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Automation Program Group 20] (TL/Distribution).
406 Mitigation

There is no additional mitigation information on FAASt [Automation Program Group 20] (TL/Distribution).

Environmental Historical Preservation

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

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.

Yes

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

- Puerto Rican boa (PR boa; Chilabothrus inornatus) In 2023, the Service amended a Programmatic Biological Opinion (PBO) for the Puerto Rican boa and the Virgin Islands tree boa. The below measures are included as Terms and Conditions (T&Cs) in the amended PBO (USFWS 2023). These T&Cs shall be part of FEMA�s conditions in projects where these species can occur, and a copy of the PBO should be made available to the Applicant for compliance. 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project.
- 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harms way as the result of the habitat disturbance (see #6). 4. For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6). 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior. 6. If any PR or VI boa (dead or alive) is found within the Action Area and on harms way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested) at least 1km from the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project starts and sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process.
- 7. Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. Any heavy machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the heavy machinery. If a PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted.
- For questions and to submit reports, the Service's Point of Contact (POC) is Jose Cruz-Burgos, Endangered Species Coordinator, and can be contacted at: Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: Caribbean es@fws.gov or jose cruz-burgos@fws.gov
- Coqui Guajon (Eleutherodactylus cooki) Conservation Measures to be implemented for a coqui guajon: i. Inform all project personnel about the potential presence of the coqui guajon in areas where the proposed work will be conducted. A preconstruction meeting must be conducted to inform all project personnel about the requirement of avoiding harm to the species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. An educational poster or sign with photos or illustrations of the species should be displayed at the project site. ii. Project boundaries, buffer zones and areas to be excluded or protected must be clearly marked in the project plans and in the field, prior to any construction activity, including removal of vegetation and earth movement. iii. Erosion and Sedimentation Control Best Management Practices (BMPs) must be included in the project scope of work when working within or adjacent to the coqui guajon habitat (e.g., rivers, streams, drainages, ravines, big boulder areas) to avoid or minimize erosion and sedimentation. Sediment runoff from the project can adversely affect the species and its habitat by filling the caves and crevices where the species occurs and uses to lay its eggs. As water is a very important component of the species; habitat, any stream, creek, or similar body of water with the habitat characteristics indicated above may harbor the species, hence it shall be protected to the maximum extent possible. iv. All project associated with streams, rivers, bridges, culverts, etc., must follow the Post-Disaster Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico from Hurricane Maria. The guide is available at: https://www.fws.gov/media/guidance-repair-replacement-and-clean-structures-

streams-and-waterways-puerto-rico-and-us If at any time you have doubts if the species or its habitat are present within a particular project or if the project may affect or not the species and its habitat, you may contact: Jose Cruz-Burgos, Endangered Species Program Coordinator. Mobile: 305-304-1386. Office phone: 786-244-0081. Office Direct Line: 939-320-3120. Email: jose_cruz-burgos@fws.gov

- The below conservation measures apply to the following species: Puerto Rican parrot (Amazona vittata) and Puerto Rican broadwinged hawk (Buteo platypterus brunnescens). All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973, as amended. During breeding seasons (see below), nest surveys shall be conducted if a project occurs within the range of any of the species listed above and if habitat for those species will be impacted by the proposed actions. Nest searches must be conducted by qualified personnel with the appropriate permits from the Puerto Rico Department of Natural and Environmental Resources (PRDNER) prior to start of work. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 50-meter buffer around any nest(s) found within the project area. This avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently. Outside the breeding season no nest surveys are required, but if a nest is encountered, all construction activities or human disturbance must be avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently. Furthermore, if any of the species indicated above is observed (e.g., foraging, resting) within the project area, avoid any disturbance to the individual(s) and do not flush the bird until it leaves on its own. Nesting seasons: Puerto Rican parrot: February-June. Puerto Rican broad-winged hawk: December-June.
- For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office at Caribbean_es@fws.gov. For questions, the Point of Contact (POC) is Jose Cruz-Burgos, Endangered Species Program Coordinator, and can be contacted at: Mobile: 305-304-1386 Office phone: 786-244-0081 Office Direct Line: 939-320-3120 Email: jose_cruz-burgos@fws.gov
- For Feeders 2601-03 and 2702-01: Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicant s permanent files.
- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Additional staging areas and/or work pads within work site area havent been identified yet. The Recipient/Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to hardened surfaces can be provided at close-out.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program Group 20] (TL/Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L.

Reviewed On 12/31/2024 8:25 AM PST

Review Comments

Project has been reviewed, found eligible and reasonable. Subrecipient is responsible for complying with all grants and subgrant conditions. - CLG 12.31.24

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 01/14/2025 5:22 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$2,623,262.08 for subaward number 108001 under Disaster # 4339. The Applicant accepts responsibility for all costs above the Fixed Cost Offer.

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

Project Signatures

Signed By Miller, Thomas

Signed On 01/15/2025

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	755211 P/W# 108022	Project Type	Specialized
Project Category	F - Utilities	Applicant	PR Electric Power Authority (000-UA2QU-
Project Title	FAASt [Automation Program Group 15] (TL/Distribution)	Event	4339DR-PR (4339DR)
Project Size	Large	Declaration Date	9/20/2017
Activity	9/20/2027	Incident Start Date	9/17/2017
Completion Date		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 #1392753; FAASt [Automation Program Group 15: San Juan, Feeder: 1646-02] (Distribution)

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

General Facility Information:

- Facility Type: Power generation, transmission, and distribution facilities
- Facility: Automation Program Group 15: San Juan, Feeder: 1646-02
- Facility Description: Transmission and Distribution Automation Feeder 1646-02
- Approx. Year Built: 1980
- Start GPS Latitude/Longitude:
- End GPS Latitude/Longitude:

General Damage Information:

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

Final Scope

1392753 FAASt [Automation Program Group 15: San Juan, Feeder: 1646-02] (Distribution)

Introduction:

This document is to submit for approval a Detailed Scope of Work ("SOW") to COR3 and FEMA for the Transmission and Distribution Automation Program under DR-4339-PR Public Assistance. The document provides a description of the project, including scope, schedule, and cost estimates. 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 according to the Transmission and Distribution Operations & Maintenance Agreement between Puerto Ricc Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A"), and LUMA Energy, and following the Conser to Federal Funding Letter issued by PREPA and P3A, which collectively provides the necessary consent for LUMA Energy, as agent of PREPA, tr undertake work in connection with any Federal Funding requests related to the Transmission and Distribution System submitted to FEMA.



Background:

In order to rebuild the entire electrical grid, the Transmission & Distribution Automation Program ("Program") installs advanced technology equipment (*i.e.*, reclosers and communicating fault current indicators) to reduce service interruptions to the electrical grid caused by disaster-related damage. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The strategy is to deploy full automation equipment to the transmission and to the distribution systems. While the individual projects are interconnected and enhance each other, each can also be implemented independent of each other, and each confers benefits independently. The Program includes multiple projects being implemented across the island on both systems. Automation is one of several initiatives to complete final restoration of the transmission and distribution systems. The 3.5 million residents throughout Puerto Rico are dependent upon the successful completion of the Program and its ability to sustain the power grid in future disasters.

Project 755211 is one of the Program's distribution-level projects. It installs hardened poles, advanced technology equipment (specifically threephase reclosers and communicating fault current indicators), and online protection devices to reduce service interruptions to the distribution grid that could be caused by disaster-related damage. Implementing the reclosers and communicating fault current indicators is critical for the Energy Management System ("EMS") and related components to function at their full capabilities and mitigate loss of service and potential damages for upcoming occurrences. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeder 1646-02.

Key components of this project are (1) pole replacement, (2) the installation of three-phase and single-phase reclosers, and (3) the installation of communicating fault current indicators. Each of these components and their benefit to the grid are described further below:

(1) Pole Replacement to Accommodate the Installation of Reclosers:

The addition of three-phase reclosers imposes additional load on poles due to the weight and operational components of the devices and it also increases the wind area exposed to extreme weather conditions, such as hurricanes, thereby augmenting the structural load these poles must withstand. Pole loading analysis will be used to determine whether a recloser pole and/or pole adjacent to the recloser will maintain structural integrity. If the pole cannot maintain structural integrity, higher-class (strength) structures/poles made of steel or concrete will be installed to comply with codes and standards. This includes adjacent poles (*i.e.*, poles that are on either side of the recloser pole supporting the overhead line conductors). Any new structure and foundation will be designed to LUMA design and industry standards so they can support the pole, recloser, and its attachments.

In addition, LUMA is using a per-location approach to pole replacement because of the intricate dynamics of deploying three-phase reclosers. Furthermore, the integration of more connections, switches, and related infrastructure often necessitates taller poles to meet phase spacing and circuit-to-circuit spacing requirements. Therefore, LUMA will replace all wood poles where three-phase reclosers are being installed, irrespective of their current condition, to address the compounded structural demands and spacing prerequisites, and ensure the resilience and reliability of the electrical grid infrastructure.

(2) Feeder Reclosers:

Reclosers are sophisticated devices that remotely detect faults within distribution lines, enable the isolation of circuit breakers linked to those faults—whether due to independent failures or breakdowns—and facilitate the swift restoration of power, often within milliseconds. This project will install three-phase and single phase reclosers on a distribution feeder.

Three-Phase Reclosers A three-phase recloser is a protection device that is used on three-phase distribution feeders with high fault currents at the location. It is a single device with three switches that can open to interrupt fault currents and automatically reclose to restore power. Three-phase reclosers are communication-ready to enable remote control and visualization.

Implementation of reclosers will preserve the continuity of electric services by pre-empting or minimizing power disruptions. The threephase reclosers can be triggered remotely and provide data back to the operations center, enabling LUMA to prioritize restoration activities, reduce customer outage time, and minimize the potential for cascading infrastructure damage. Installation of the three-phase reclosers and associated hardware is critical for the EMS and associated components to function with full capabilities and to prevent loss of service and potential damages in future disasters.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three-phase recloser, but it does not have the ability to communicate with the EMS. This project will install single-phase reclosers on the distribution feeder and distribution lines branching from the feeder. It is a protection device that is used on a single-phase or a two-phase distribution feeder. Single-phase reclosers are used on feeders with three-phases if fault currents are low at the location. A single-phase recloser is a single device with one switch that can open to interrupt fault currents and automatically reclose to restore power.

(3) Communicating Fault Current Indicators

Install communicating fault current indicators ("cFCI") at strategic locations to improve the outage management, restoration, and recovery process, specifically by decreasing the time required to detect and locate faults. cFCI operate independent of the feeder reclosers. cFCI help identify permanent and incipient faults in the distribution system and collect voltage and current data which can be used to detect system imbalance, prevent future issues due to harmonics and help in building a predictive failure models. That data is used by the grid operator to make decisions on operations, management and restoration. The cFCI can be programmed to send automatic notification/alarms based on user set

parameters. This allows for quick dispatch of field crews to specific sections of the feeders and reduces the total restoration time during an outage event which saves. Installation of the three-phase reclosers and associated hardware, the communicating fault current indicators (communications ready) are critical for the Energy Management System ("EMS") and associated components to function with full capabilities and to mitigate the loss of service and potential damages in future disasters.

This project is distinguishable from projects where the reclosers are installed on microgrids, such as those in Vieques and Culebra. Microgrids require extremely fast communications that fiber optics can provide; other advanced technology such as Phasor Measurement Units may also require such high speed/bandwidth communications. That speed/bandwidth is not required on a standard feeder and would significantly increase the cost. LUMA has developed this scope for reclosers and their associated hardware only. cFCIs and reclosers can communicate through a few different modes of communications, so the lack of fiber optics in this scope of work does not prevent or limit the monitoring capabilities of reclosers and cFCIs or the automation capabilities of reclosers. Furthermore, it does not prohibit the incorporation of fiber optics later.

Facilities:

Facilities Description

The facilities listed below are part of the electrical distribution system. All feeders originate from a substation (start) and serve customers along the route to various locations (end). The coordinates shown below represent the mainline backbone of each feeder. Please refer to the **APPENDIX D** - **LUMA Active Projects** to show no duplication of scope elements.

Facilities List

Name	Damage Number	Feeder Number	GPS Location
San Juan	1392753	1646-02	

Note: Please refer to Appendix C -- Project Considerations for a list of all GPS locations that this project will impact.

Project Scope of Work:

Below is a list of the "Proposed 428 Public Assistance Scope of Work" proposed for Feeder 1646-02.

Proposed 428 Public Assistance Scope of Work Feeder 1646-02

Pole FID	Coordinates Lat, Long	Existing	428 Replacement	SCOPE OF WORK
New Pole		None	(60' S10 STEL POLE) (CP-C6- XARM) (CP-C5- XARM) (ASSY-1509) (E-1-2-3) (F-1-3) (K-5) (STL-10) (REC-2-1-1 ver 1)	 Install new 60' S-10 Galvanized steel pole as a midspan pole. Install Primary and secondary framing. Install (1) three-phase recloser 1646- 02-A non-radial configuration. Install (2) 1kva transformer (13.2 120/240v) to feed recloser from source side an side.
22795938		(65'-H6 CONCRETE POLE) (38KV S CVERTICAL TANGENT 10(QTY=1)) (CP1C8(QTY=1)) (S- 1(QTY=1))	(70' S8 12-SIDED GALVANZED STEEL POLE) (38KV SC TANGENT DELTA SUSPENSION(QTY=1) REC-2-1-1 VER1(QTY=1)) (S-1(QTY=1))	 Remove and dispose 65' H6 Concrete pole Replace with 70' S8 12-sided galvanized steel pole. Install (1) three-Phase recloser 1646- 02B on a radial configuration. Replace primary framing. Install (2) 1kva transformer (13.2 120/240v) to feed recloser from source Side an side

Pole FID Coordinates Lat, Existing 428 Replacement	SCOPE OF WORK
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NEW POLE	(NONE)	(60' S8 12-SIDED GALVANZED STEEL FOLE) (38KV 3P DELTA SUSPENSION) (OP-O9- XARM) (REC-3-C) (K-6 (QTY=1))	 Install new 60' S8 12-sided galvanized steel pole as Mdspan. Install 38kv standards framing. Install primary and secondary framing. Install (3) Outout Mounted Single-Phase Recloser on segment RID 26851351.
15158761	(55-C2 WOOD POLE) (CP-C1) (K-6 (QTY=1)	(45 S5.7 STEEL POLE) (CP-C6-VERT) (REC-3-C-VERT) (K-6 (QTY=1))	Remove and dispose 55'C2 wood pole. Replace with 45' S5.7 12-sided galvanized steel pole. Replace primary and secondary framing. Install (3) cutout mounted Single-Phase recloser on segment FID 26851351.
15158776	(ASSY- 1509(QTY=3))	(LABOR & REPAIR)	Remove and dispose fuses (fid: 26521870 (qty=3)) and close jumpers due to cutout mounted single-phase recloser installation in pole fid: 15158761.
15152286	(ASSY- 1509(QTY=3))	(LABOR & REPAIR)	Remove and dispose fuses (fid: 26521895 (qty=3)) and close jumpers due to cutout mounted single-[hase recloser installation in segment fid: 26522009.
28482726	(ASSY- 1509(QTY=3))	(LABOR & REPAIR)	Remove and dispose fuses (qty=3) and close jumpe to cutout mounted single-phase recloser installation in segment fid: 26851351.
15158633	(ASSY- 1509(QTY=3))	(LABOR & REPAIR)	 Remove and dispose fuses (qty=3) and close jumpe to cutout mounted single-phase recloser installation in segment fid: 26851351.
NA	NONE	(LABOR, cFOI) (QTY=3	Labor to install communicating fault current indicator segment 23399078.
NA	NONE	(LABOR, cFCI) (QTY=3	Labor to install communicating fault current indicator on segment 26522373.

For more detailed information about the scope of work please refer to the APPENDIX B- LUMA Project Cost Estimate.

Scope Notes:

1) The work will be performed in accordance with the notes below, the Distribution Construction Standards (Concrete Base Standard) and LUMA Overhead Electrical Distribution System Manual V4, and **APPENDIX C – Project Considerations.**

Pole Replacement

a. Remove and dispose and replace poles, including hardware in the same location. If unable to install the replacement in the same location, the pole will be installed within 3 feet.

b. Most pole installations are to replace existing pole locations; there are two new pole locations included in this scope of work. Refer to **APPENDIX C – Project Considerations**, column C (soil area and depth impact) for the depths of the poles to be installed.

c. Adjacent poles will be installed, in locations noted in table above, in conformance with LUMA and industry standards.

d. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual within 3ft of the existing anchor. The maximum distance an anchor will be installed for a 50ft pole is 25ft from the base of the pole, within the right-of-way.

e. The brushing of vegetation will be limited to a 10 ft radius that surrounds the surface of the pole without exceeding the width of the right-of-way. No tree removal will occur as part of this scope. Refer to **APPENDIX C- Project Considerations** for locations where vegetation brushing is anticipated. The vegetation removal process will be managed according to applicable federal and state regulations.

f.			All existing	overhead	conductors,	poles,	assem	blies, a	nd	at	tached
components	will	be	disconnected,	removed,	and	replaced	as	outlined		in	the

scope of work. When poles, assemblies, and attached components are not being replaced per the scope of work, all assemblies and components will be re-installed to the pole, with the overhead conductor re-attached to complete the installation and reconstruction of the feeder.

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

2) Debris will be separated and taken to an approved waste disposal facility in compliance with applicable federal and local regulations.

3) The construction of access roads is not required for this scope of work. Poles are close to the roads and are site accessible.

4) Staging area requirements were considered for the new equipment to be installed and the equipment to be retired. All materials will stored and dispatched from the assigned LUMA's Regional Warehouse. The warehouse be assigned is the Carolina District Warehouse, whose address is #21 Campeche Street, Industrial Julio N. Matos, Martin González Ward, Carolina, PR. Coordinates are . Refer to document Warehouse Locations.

5) Fill, Gravel, and Sand materials will be obtained from an approved supplier as referenced in the document *LUMA Vendor Directory List.*

6) The equipment to be used is a Skid Steer, Excavator, Dump truck, Manlift, 120- ton Motor Crane, Boom Trucks, 45-ton Crane, Zoom Boom, Air compressor, Truck Digger, Water truck, Pump Truck, Concrete Vibrator, Oil Tanker, Filtering Machine, and Flatbed platform. Vegetation will be removed utilizing a machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper. All equipment used will comply with Tier 4 EPA Emission Standard, if available.

7) Specific List of Permits Required:

a. Department of Transportation and Public Works - ("DTOP") Endorsements & Municipality Notifications

- b. Excavation and Demolition Notification in the DTOP
- c. LUMA will provide proof of all permits.

Proposed 406 Hazard Mitigation Scope of Work

This version of the project will be fully funded using PA 428 funds. A future version of this project may contain PA 406 HM measures.

Type of Project:

Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved codes and standards.

This work will follow FEMA (Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR February 2020).

Note: If preliminary A&E work has not been completed, the type of project designation is considered initial and based on currently available information. The designation may be revised based on the completed preliminary A&E work results.

Codes and Standards:

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

1. Consensus-based codes, per FEMA (Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR February 2020).

2. Industry standards per FEMA Recovery Policy FP-104-009-5, Version 2, Implementing Section 20601 of the 2018 Bipartisan Budget Act through the Public Assistance Program.

3. FEMA Recovery Interim Policy FP-104-009-11 Version 2.1, Consensus-Based Codes, Specifications, and Standards for Public Assistance.

4. LUMA's latest Design Criteria Document (DCD) aggregates the design considerations of most of the consensus-based codes, specifications, and standards listed in FEMA Recovery Interim Policy 104-009-11 Version 2.1 (December 20, 2019).

Project Schedule:

Milestone	Target Date
FEMA Obligation Funds	September 2024
Start Procurement of Long-Lead Items	July 2023
Start Environmental and Permitting	September 2024

In-Service-Date	April 2025
Start Project Construction	October 2024
Start Detailed Design Engineering	January 2024

Project Cost Estimate (PCE):

The estimated costs (Class 3 Accuracy +/-30%) to complete the project are captured in the table(s) below. The cost estimate was developed utilizing preliminary Architectural and Engineering design information and is subject to being updated. LUMA has allocated 10% of the project cost to mitigate potential known risks. For more details refer to **APPENDIX B- Detailed Cost Estimate**.

	COST ESTIMATE						
COST ELEMENT	428	406	PROJECT TOTAL				
PLANNING	\$50,770.52	\$50,770.52					
MANAGEMENT	\$31,088.05	-	\$31,088.05				
Group 15- DAUT	\$533,842.94	-	\$533,842.94				
GENERAL CONDITIONS	\$33,428.39	-	\$33,428.39				
CONTINGENCY	\$76,289.52	-	\$76,289.52				
COST TOTALS	\$725,419.42	-	\$725,419.42				
DEDUCTIONS	TOTAL INSURANCE PROCEEDS RE	\$0					
	FAASt Project # 75521	\$643,560.85					
FAASt ALLOCATIONS	FAASt A&E # 335168	B TOTAL	\$81,858.57				

Project Cost Summary, Version 0:

Work to be Completed (WTBC): \$725,419.42

A&E Deduction (Global A&E FAASt 335168): -\$81,858.57

Project Total: \$643,560.85

Attachments:

755211-DR4339PR-APPENDIX A - Initial Scope of Work

755211-DR4339PR-APPENDIX B – Detailed Cost Estimate

755211-DR4339PR-APPENDIX C - Project Considerations

755211-DR4339PR-APPENDIX D - LUMA's Active Projects

Project Notes:

1. Refer to the detailed SOW provided in document named: 755211- DR4339PR- DSOW Group 15 DAUT Revision 01.pdf.

2. This project is part of Donor FAASt 136271 - MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.

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

4. This project is part of Donor FAASt 136271 - MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.

5. The permanent staging area will be located inside the existing PREPA facilities.

6. For detailed cost estimate, please refer to document named: 755211-DR4339PR-APPENDIX B- DETAILED COST ESTIMATE.xlsx.

406 HMP Scope

406 Hazard Mitigation measures were not requested by the subrecipient for this project in Version 0. However, the mitigation opportunities will be applied in a future version (V1) of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
3510 ((V0 Engineering and Design Services, Deduction - PREPA FAASt Global A&E 335168))	1.00	Lump Sum	(\$81,858.57)	Uncompleted
9201 (PAAP Fixed Estimate (No Value - Tracking Purposes Only))	1.00	Lump Sum	\$0.00	Completed
9001 ((V0 Contract - PREPA FAASt Donor Project 136271))	1.00	Lump Sum	\$725,419.42	Uncompleted

CRC Gross Cost	\$643,560.85
Total 406 HMP Cost	\$0.00
Total Insurance Reductions	\$0.00
CRC Net Cost	\$643,560.85
Federal Share (90.00%)	\$579,204.77
Non-Federal Share (10.00%)	¢61 256 00

Award Information

Version Information

Version	Eligibility	Current	Bundle	Project	Cost	Federal Share	Date
#	Status	Location	Number	Amount	Share	Obligated	Obligated
Drawdow	n 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 #
0	2/6/2025	\$579,204.77	90%	Accepted	4339DRPRP01080221

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

<u>11/27/2024</u>

GENERAL INFORMATION

Event: DR4339-PR

Project: SP 755211

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 \$643,560.85

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: <u>Willis Towers Watson</u> (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-CP-000318674-0, 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) #1392753:

FAASt [Automation Program Group 15: San Juan, Feeder: 1646-02] (Distribution)

Location: Transmission and Distribution Automation Feeder 1646-02

GPS Coordinates: Start to End.

Cause of Loss: Wind / Wind Driven Rain

Damage Inventory Amount: CRC Gross Cost \$643,560.85

Prior Obtain and Maintain Requirement:

No prior insurance requirements were found for this facility.

Reduction(s):

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

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Obtain and Maintain Requirement:

No Obtain & Maintain Requirement is being mandated for the FAASt [Automation Program Group 15: San Juan, Feeder: 1646-02] (Distribution) because the facility does not meet the definition of building, equipment, contents, or vehicle._

Insurance Proceeds Statement:

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

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

Standard Insurance Comments

FEMA Policy 206-086-1

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

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

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

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

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

• • •

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt** [Automation Program Group 15] (TL/Distribution).

406 Mitigation

There is no additional mitigation information on FAASt [Automation Program Group 15] (TL/Distribution).

Environmental Historical Preservation

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

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.

Yes

- 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.
- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures
- Puerto Rican Boa (Chilabothrus inornatus) 1. Inform all project personnel about the potential presence of the Puerto Rican (PR) boa and Virgin Islands (VI) boa in areas where the proposed work will be conducted and provide training on PR and VI boa identification. A pre-construction meeting will be conducted to inform all project personnel about the need to avoid harming these species. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the Endangered Species Act of 1973. An educational poster or sign with photo or illustration of these species will be displayed at the project site. 2. Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area and any area to be excluded and protected will be clearly marked in the project plan and in the field to avoid further habitat degradation outside of the footprint of the project. 3. Once areas are clearly marked, and right before the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), biologist or designated project personnel with experience on these species will survey the areas to be cleared to verify the presence of any PR or VI boa within the Action Area. If a PR or VI boa is found during the search, it should be captured and managed as per #6 below. Once the removal of vegetation begins, the biologist or designated personnel must remain at the work site and be ready to capture any boa that might be in harm's way as the result of the habitat disturbance (see #6). 4. For VI boas, once the Action Area has been searched, vegetation will be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow VI boas present on site to move away on their own to adjacent available habitat. If there is no suitable habitat adjacent to the project site, any VI boa found will be relocated accordingly (see #6). 5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. Data will also include a photo of the animal (dead or alive), relocation site GPS coordinates, time and date of the relocation, and comments on how the animal was detected and its behavior. 6. If any PR or VI boa (dead or alive) is found within the Action Area and on harm's way, the action will stop, and information will be recorded (see #5). All attempts will be made to immediately safely capture and relocate the animal within suitable habitat (forested) at least1 km from the Action Area and away from construction areas. PR boa relocation sites will be pre-determined before the project start sand sites shared with the Service for revision and concurrence. Relocation of PR boas will be conducted by trained, designated personnel ensuring the animal is not harmed or injured during the capture and relocation process.
- 7.Measures will be taken to avoid and minimize PR boa and VI boa casualties by heavy machinery or motor vehicles being left in the Action Area. *.Any heavy machinery left on site (staging areas) or near potential PR or VI boa habitat will be thoroughly inspected each morning before work starts to ensure that no boa shave sheltered within engine compartments or other areas of the heavy machinery. Ifa PR boa or VI boa is found within vehicles or heavy machinery, boas will be safely captured accordingly. If not possible, the animal will be left alone until it leaves the vehicle or machine by itself. *.The PR boa and VI boa may seek shelter within debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in new debris piles as a result of project activities. New debris piles should be placed in areas as far as possible from forested areas. Prior to moving, disposing, or shredding, debris piles should be carefully inspected for the presence of PR boas and VI boas. If debris piles will be left on site, we recommend they be placed in an undisturbed area. *.In the event a PR boa and VI boa is found dead within the project area, the Federal Agency and the Recipient must contact the Service to appropriately dispose the animal. *.If a PR boa or a VI boa is accidentally injured or killed during capture and relocation activities during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether

modifications are warranted. *.Should the forms of take reach the amount of exempted take during the Action, the Federal Agency and the Recipient shall terminate the authorized activities and contact the Service within 24 hours to reinitiate consultation. The Federal Agency will consult with the Service to determine whether authorized activities should continue as proposed and whether modifications are warranted. For questions and to submit reports, the Service's Point of Contact (POC) is José Cruz-Burgos, Endangered Species Coordinator, and can be contacted at:¿Mobile: 305-304-1386 ¿Office phone: 786-244-0081 ¿Office Direct Line: 939-320-3120 ¿Email: Caribbean_es@fws.gov or jose_cruz-burgos@fws.gov

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

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program Group 15] (TL/Distribution)**.

Final Reviews

Final Review

Reviewed By Amaro, Luis N.

Reviewed On 12/17/2024 12:11 PM PST

Review Comments

LNA 12/17/24. This project has been reviewed, found eligible and cost reasonable, and it is ready to continue the award process.

Recipient Review

Reviewed By Salgado, Gabriel

Reviewed On 12/19/2024 9:31 AM PST

Review Comments

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

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of \$643,560.85 for subaward number 108022 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 12/19/2024