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

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

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

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC, and **LUMA Energy ServCo, LLC**, (jointly referred to as "LUMA"), through the undersigned legal counsel and, respectfully submits the following:

I. Submittal of Two 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.

2. On July 8, 2021, LUMA filed a *Motion Submitting List of Projects and Twenty-Eight Scopes of Work* ("July 8th Motion"). In the July 8th Motion, LUMA submitted twenty-eight (28) SOWs for T&D Projects for the Energy Bureau's review and approval prior to submitting them to COR3 and FEMA. Among the twenty-eight SOWs, LUMA submitted the "Distribution Feeders – Caguas Short Term Group 5" and the "Distribution Feeders – San Juan Short Term Group 1" SOWs.

3. On August 20, 2021, the Energy Bureau issued a Resolution and Order that determined that all of the SOWs for T&D projects submitted by LUMA in the July 8th Motion were necessary to improve the system's reliability ("August 21st Order"). Therefore, it approved most of the projects presented in the July 8th Motion, including the "Distribution Feeders – Caguas Short Term Group 5" and the "Distribution Feeders – San Juan Short Term Group 1" SOWs. 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.

4. Then, 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, encompassing pole and conductor replacement projects throughout Puerto Rico.

5. 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 in the August 30th Motion 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.

6. Thereafter, 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* ("July 29th Motion") 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.

7. On August 25, 2022, the Energy Bureau issued a Resolution and Order that determined that the SOWs for T&D projects submitted by LUMA in the July 29th Motion were necessary to improve the system's reliability ("August 25th Order"). Therefore, it approved all 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 receipt of such approval.

8. 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").

9. 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").

10. As shown in Exhibit 1 of the Motion filed on January 24, 2022, *Motion Submitting Updated 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 "FAASt [Pole and Conductor Repair – Mayaguez Group 3 - Phase 2] (Distribution)" and " FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (Distribution)" T&D Projects.

11. 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 27] (Distribution)",

"FAASt [Automation Program Group 32] (TL / Distribution)" and "FAASt [Automation Program Group 33] (Distribution)" T&D Projects.

12. In compliance with the August, 20th, September 22nd, August 25th, and November 27th Orders, LUMA hereby submits copies of the following approvals by FEMA issued on September 25, 2025: "FAASt [Pole and Conductor Repair – Mayaguez Group 3 - Phase 2] (Distribution)", "FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (Distribution)", "FAASt [Automation Program Group 27] (Distribution)", "FAASt [Automation Program Group 32] (TL / Distribution)", "FAASt [Automation Program Group 33] (Distribution)", "FAASt [Feeder Rebuild 3502-02 (Distribution)"[1] and "FAASt [Feeder Rebuild # 1303-02] (Distribution)"[2] T&D Projects. *See* **Exhibit 1**[3] to this Motion. The document contains FEMA's approvals and includes the costs obligated for each Project.

13. 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 (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

[1] Part of the "Distribution Feeders – Caguas Short Term Group 5" SOW.
[2] Part of the "Distribution Feeders – San Juan Group 1" SOW.
[3] Please note that **Exhibit 1** has digitalization and table format issues, which are found on the documents as issued by FEMA.

14. 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 (2025). 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).

15. 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).

16. 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.

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

18. 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).

19. 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

20. 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.[4] In at least two Data Security and Physical Security proceedings,[5]

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

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

this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

21. Additionally, this Energy Bureau has granted requests by LUMA to protect CEII in connection with LUMA's System Operation Principles. *See* Resolution and Order of May 3, 2021, table 2 on page 4, Case No. NEPR-MI-2021-0001 (granting protection to CEII included in LUMA's Responses to Requests for Information). Similarly, in the proceedings on LUMA's proposed Initial Budgets and System Remediation Plan, this Energy Bureau granted confidential designation to several portions of LUMA's Initial Budgets and Responses to Requests for Information. *See* Resolution and Order of April 22, 2021, on Initial Budgets, Table 2 on pages 3-4, and Resolution and Order of April 22, 2021, on Responses to Requests for Information, Table 2 on pages 8-10, Case No. NEPR-MI-2021-0004; Resolution and Order of April 23, 2021, on Confidential Designation of Portions of LUMA's System Remediation Plan, table 2 on page 5, and Resolution and Order of May 6, 2021, on Confidential Designation of Portions of LUMA's Responses to Requests for Information on System Remediation Plan, table 2 at pages 7-9, Case No. NEPR-MI-2020-0019.

22. 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.

23. 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.

24. 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.

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

24. 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").[6]

[6] 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;

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).[7]

25. Portions of the FEMA approvals in **Exhibit 1** qualify as CEII because each of these documents contains the express coordinates and physical addresses to power transmission and distribution facilities (18 C.F.R. § 388.113(iv)), and these specific coordinates and addresses could

(C) shall not, without the written consent of the person or entity submitting such information, be used directly by such agency, any other Federal, State, or local authority, or any third party, in any civil action arising under Federal or State law if such information is submitted in good faith;

(D) shall not, without the written consent of the person or entity submitting such information, be used or disclosed by any officer or employee of the United States for purposes other than the purposes of this part, except—

(i) in furtherance of an investigation or the prosecution of a criminal act; or

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

(I) to either House of Congress, or to the extent of matter within its jurisdiction, any committee or subcommittee thereof, any joint committee thereof or subcommittee of any such joint committee; or

(II) to the Comptroller General, or any authorized representative of the Comptroller General, in the course of the performance of the duties of the Government Accountability Office

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

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

(ii) otherwise be disclosed or distributed to any party by said State or local government or government agency without the written consent of the person or entity submitting such information; or

(iii) be used other than for the purpose of protecting critical Infrastructure or protected systems, or in furtherance of an investigation or the prosecution of a criminal act.

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

[7] CII includes the following types of information:

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

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

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

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.

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

C. Identification of Confidential Information

27. 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 [Pole and Conductor Repair – Mayaguez Group 3 -	Pages 1-2, 6	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113;	October 3, 2025

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
	Phase 2] (Distribution)		6 U.S.C. §§ 671-674.	
Exhibit 1	FAASt [Pole and Conductor Repair - Mayaguez Group 4 Phase 2] (Distribution)	Pages 1-2	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 3, 2025
Exhibit 1	FAASt [Automation Program Group 27] (Distribution)	Pages 1, 4-15, 17	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 3, 2025
Exhibit 1	FAASt [Automation Program Group 32] (TL / Distribution)	Pages 1, 3-17	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 3, 2025
Exhibit 1	FAASt [Automation Program Group 33] (Distribution)	Pages 1, 3-12	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 3, 2025
Exhibit 1	FAASt [Feeder Rebuild 3502-02 (Distribution)	Pages 1-3, 9	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113;	October 3, 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 [Feeder Rebuild # 1303-02] (Distribution)	Pages 1-3, 8	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	October 3, 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 José J. Díaz Alonso, jdiaz@sbgblaw.com.

In San Juan, Puerto Rico, on this 3rd day of October 2025.

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Exhibit 1

(redacted version, confidential unredacted version to be filed under seal of confidentiality)

Department of Homeland Security
Federal Emergency Management Agency

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General Info

Project #	750692 **P/W #** 107979	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Pole and Conductor Repair - Mayaguez Group 3 - Phase 2] (Distribution)	**Event**	4339DR-PR (4339DR)
		Declaration Date	9/20/2017
Project Size	Large	**Incident Start Date**	9/17/2017
Activity Completion Date	9/20/2027	**Incident End Date**	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1309792; FAASt [Pole and Conductor Repair - Mayaguez Group 3- Phase 2] (Distribution)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Pole and Conductor Repair Mayaguez Group 3 Phase 2
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1980
- **GPS Latitude/Longitude:** [redacted]

Final Scope

1309792 **FAASt [Pole and Conductor Repair - Mayaguez Group 3- Phase 2] (Distribution)**

INTRODUCTION

This document is to submit for COR3 and FEMA approval the Detailed Scope of Work (SOW) for project 750692 Distribution Pole and Conductor Repair - Mayagüez Group 3 - Phase 2 under DR-4339-PR Public Assistance. The document provides a detailed project description, including scope, schedule, cost estimates Environmental and Historic Preservation (EHP) requirements. 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 under the Transmission and Distribution Operations & Maintenance 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, 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 T&D System submitted to FEMA.

FACILITIES

Facilities Description

The interconnected and inter-functional distribution feeders (sites) that are the object of this scope of work are part of the electrical distribution system in the Mayagüez Region. 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 each feeder’s mainline backbone.

Facilities List

The table below describes seven distribution feeders being replaced as part of the project. The table identifies the GPS location of the line segments, the voltage level, and an indication of the extent of work by identifying the number of poles to be replaced.

Name	Feeder Number	Number Of Poles to be Replaced	GPS Start	GPS End[KGF1]	Phase	Voltage Level (kV)	Construction Date
SAN GERMAN, SUB. 6406	6406-02	24	[redacted]	[redacted]	1 Phase	13.2	More than 20 years
LAJAS, SUB. 6601	6601-03[LG2]	138			1 Phase	7.2	More than 20 years
LA PARGUERA, SUB. 6603	6603-01	53			1 Phase	13.2	15 years
CABO ROJO, SUB. 6703	6703-01	67			1 Phase	7.2	More than 20 years
COMBATE, SUB. 6704	6704-02[LG3]	122			1 Phase	13.2	More than 20 years
COMBATE, SUB. 6704	6704-03	121			1 Phase	13.2	More than 20 years
PUERTO REAL, SUB. 6705	6705-01	33			1 Phase	7.2	More than 20 years

PROJECT SCOPE OF WORK

The project’s scope is the replacement of poles and the repair of conductors for specific feeders in the Mayagüez region to be performed under the “Proposed 428 Public Assistance Scope of Work”. Each work type specific to said scope of work for this group is included below.

The proposed restoration includes the replacement of eligible disaster damage up to required codes and standards and the request to upgrade undamaged infrastructure to fully effectuate the restoration of disaster-damaged components and restore the system’s function to an approved industry standard. The Scope of Work consists of the removal and replacement of the following infrastructure to restore this facility to codes and standards.

A. Proposed 428 Public Assistance Scope of Work

Feeder 6406-02 Scope:

Remove	Quantity	Install	Quantity
35' WOOD	11	45FT S5.7 GALV STEEL	11
40' WOOD	3	45FT S5.7 GALV STEEL	3
35' WOOD	7	50FT S8 GALV STEEL	7
40' WOOD	3	50FT S8 GALV STEEL [MS1] [YO2]	3

Feeder 6601-03 Scope:

Remove	Quantity	Install	Quantity
30' WOOD	4	45FT S5.7 GALV STEEL	4
35' WOOD	109	45FT S5.7 GALV STEEL	109
40' WOOD	15	45FT S5.7 GALV STEEL	15
40' CONCRETE	1	45FT S5.7 GALV STEEL	1
45' WOOD	3	45FT S5.7 GALV STEEL	3
35' WOOD	4	50FT S8 GALV STEEL	4
40' WOOD	2	50FT S8 GALV STEEL	2

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Feeder 6603-01 Scope:

Remove	Quantity	Install	Quantity
35' WOOD	39	45FT S5.7 GALV STEEL	39
40' WOOD	10	45FT S5.7 GALV STEEL	10
35' WOOD	4	50FT S8 GALV STEEL	4

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Feeder 6703-01 Scope:

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Remove	Quantity	Install	Quantity
30' WOOD	2	45FT S5.7 GALV STEEL	2
35' WOOD	31	45FT S5.7 GALV STEEL	31
40' WOOD	30	45FT S5.7 GALV STEEL	30
35' CONCRETE	1	45FT S5.7 GALV STEEL	1
35' WOOD	2	50FT S8 GALV STEEL	2
40' WOOD	1	50FT S8 GALV STEEL	1

Feeder 6704-02 Scope:

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Remove	Quantity	Install	Quantity
30' WOOD	7	45FT S5.7 GALV STEEL	7
35' WOOD	60	45FT S5.7 GALV STEEL	60
40' STEEL	1	45FT S5.7 GALV STEEL	1
40' WOOD	42	45FT S5.7 GALV STEEL	42
45' WOOD	2	45FT S5.7 GALV STEEL	2
35' WOOD	4	50FT S8 GALV STEEL	4
40' WOOD	6	50FT S8 GALV STEEL	6

Feeder 6704-03 Scope:

-

Remove	Quantity	Install	Quantity
30' WOOD	1	45FT S5.7 GALV STEEL	1
35' WOOD	51	45FT S5.7 GALV STEEL	51

40' WOOD	55	45FT S5.7 GALV STEEL	55
40' CONCRETE	13	45FT S5.7 GALV STEEL	13
40' WOOD	1	50FT S8 GALV STEEL	1

Feeder 6705-01 Scope:

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Remove	Quantity	Install	Quantity
35' WOOD	21	45FT S5.7 GALV STEEL	21
40' WOOD	9	45FT S5.7 GALV STEEL	9
45' WOOD	1	45FT S5.7 GALV STEEL	1
35' WOOD	1	50FT S8 GALV STEEL	1
40' WOOD	1	50FT S8 GALV STEEL	1

B. Scope Notes

The work includes the following actions:

A. Pole Replacement

1. Remove existing poles, including hardware, and install new poles, including hardware, in the exact location. If the replacement cannot be installed in the precise location, the pole will be installed within 3 feet.

2. All new poles will be installed in the existing locations. No new locations are included in this scope of work. For the depths of the poles to be installed, refer to APPENDIX C – Project Considerations, column C (Soil area and depth impact).

3. The existing foundation will be removed and replaced with a new concrete foundation base as per the Distribution Construction Standards (Concrete Base Standard). The maximum auger width to be used is 42” and the maximum depth to be drilled is 15 feet. Refer to APPENDIX C – Project Considerations, column I (Concrete Foundation), for specific locations where this work applies.

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

5. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to 10 feet 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. The costs related to Vegetation clearance procedures are in project [727562] FAASt [Region 5 -Mayaguez Group C] (Vegetation). The vegetation removal process will be managed according to federal and state regulations.

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

B. Material Disposal:

1. PCBs, oil from the transformer and breakers, sealants, and chemical wastes typical of a construction site are considered hazardous waste and will be disposed of by the contractor in authorized facilities per applicable federal and state regulations. Refer to the Waste Management Plan in the applicant profile.

2. Debris to be removed includes luminaires, polearms, photocells, metal scrap, wiring, concrete, steel, and wood poles. The debris will be separated and taken to an authorized waste disposal facility per applicable federal, state, and local regulations. Refer to the Waste Management Plan in the applicant profile.

3. Transformers will be contained and returned to LUMA in compliance with applicable federal, state, and local regulations. Removing the transformer will require testing the existing oil for PCB levels. The oil will be drained and delivered to the authorized waste disposal site per environmental regulations. Refer to the Waste Management Plan in the applicant profile.

C. Access Roads:

1. Poles are close to the roads and are site-accessible with existing access points at the established locations. The construction of access roads is not required for this scope of work. Refer to APPENDIX C – Project Considerations ir column G, “Site Accessible.”

D. Staging Area:

1. All materials are stored and dispatched from the Mayagüez Regional Warehouse located at coordinates [redacted]. Refer to Warehouse locations in the applicant profile. No additional or temporary staging areas are required.

E. Fill, Gravel, Sand, etc.

1. Fill, gravel, and sand materials will be obtained from an approved supplier as referenced in the LUMA Vendor Directory List in the applicant profile. LUMA will retain and make available for review the documentation provided by material suppliers.

F. List of Equipment to be used:

1. 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.

2. Vegetation will be brushed utilizing machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper.

G. Specific List of Permits Required:

1. DTOP Endorsements and Municipality Notifications.

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

C. Proposed 406 Hazard Mitigation Grant Program Scope of Work

406 Hazard Mitigation Proposal

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.

PROJECT COST ESTIMATE

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 known risks. For more details, refer to APPENDIX B – Detailed Cost Estimate.

COST ESTIMATE			
Cost Element	**428**	**406**	**PROJECT TOTAL**
PLANNING	**$1,303,262**	**$-**	**$1,303,262**
MANAGEMENT	**$496,481**	**$-**	**$496,481**
Mayaguez Group 3 - Phase 2	**$15,430,664**	**$-**	**$15,430,664**
COST TOTALS	**$17,230,407**	**$-**	**$17,230,407**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		
FAASt ALLOCATIONS	**FAAST PROJECT #750692 TOTAL:**		**$12,921,047**
FAASt A&E # 335168 TOTAL	**$1,799,743**	**$-**	**$1,799,743**
FAASt E&M #673691 TOTAL	**$2,509,617.00**	**$-**	**$2,509,617**

Work To Be completed: $17,230,407.00

A&E Deduction (Global A&E FAASt# 335168): $1,799,743.00

E&M Deduction (FAASt# 673691): $2,509,617.00

Project Total Cost (FAASt Project# 805521): $12,921,047.00

Project Cost Estimate Notes:

1. A&E cost included in this project will be reduced from this project and obligated under the FAASt Project #335168, A&E, as show in in the table above. The A&E project was obligated to track and account for costs associated with individual FAASt projects.

2. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials, as shown in the table above. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project.

Project Notes:

1. Refer to detailed SOW provided in document 750692-DR4339PR-Detailed SOW Mayaguez Group.
2. For reference documents Appendix A thru C, see file labeled:

APPENDIX A - Structure Coordinates
APPENDIX B - Detail Cost Estimate
APPENDIX C - Project Considerations

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
9001	1	Lump Sum	$17,230,407.00	Uncompleted
9001	1	Lump Sum	($2,509,617.00)	Uncompleted
3510	1	Lump Sum	($1,799,743.00)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$12,921,047.00
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$12,921,047.00
Federal Share (90.00%)	$11,628,942.30
Non-Federal Share (10.00%)	$1,292,104.70

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

4/30/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

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 - Mayaguez Group 3 - Phase 2] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Pole and Conductor Repair - Mayaguez Group 3 - Phase 2] (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.
- a. The Subrecipient and/or Subrecipient s contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA(PSPA), executed on August 2, 2022.
- b. Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register,

or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm.

- c. 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.
- 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.
- Conservation Measures for Cordia bellonis, Aristida chaseae, and Stahlia monosperma (Feeders 6406-02, 6704-02, 6704-03, 6705-01): 1. 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. Service's 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.
- Conservation Measures for Atlantea tulita (Feeder 6406-02): 1. 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. 2. 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. 3.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. 4. 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.
- Continuation of Conservation Measures for Atlantea tulita (Feeder 6406-02): 5. 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. 6. 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. 7. 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: -Clearly mark the host plant with flagging tape. -Establish a 10-meter (32-foot) buffer zone around the bush for its protection. -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. 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. 8. 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. 9. 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

- Conservation Measures for Agelaius xanthomus, Accipiter striatus venator, Amazona vittata, Buteo platypterus brunnescens, Caprimulgus noctitherus (Feeders 6406-02, 6601-03, 6603-01, 6703-01, 6704-02,6704-03): 1. 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 plain pigeon: April-September. - Puerto Rican broad-winged hawk: December-June. - Puerto Rican sharp-shinned hawk: December-June. - Puerto Rican nightjar: February-August. - Elfin-woods warbler: March-June. - Yellow-shouldered blackbird: February-November. 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 2. Work conducted within the Yellow-shouldered blackbird Critical Habitat that includes vegetation removal or habitat modification requires consultation with the Service. Road repairs or other actions within the existing footprint do not require consultation.
- Conservation Measures for Chilabothrus inornatus (For all feeders): 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).
- Continuation of Conservation Measures for Chilabothrus inornatus (For all feeders): 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 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

- 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.
- 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 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Pole and Conductor Repair - Mayaguez Group 3 - Phase 2] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:27 PM PDT

Review Comments

Reviewed, found eligible and reasonable. CLG 09/12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/18/2025 1:28 PM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $12,921,047.00 for subaward number 107979 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.

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	9/25/2025	$11,628,942.30	90%	Accepted	4339DRPRP01079791

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	752540 **P/W #** 107999	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Pole and Conductor Repair - Mayaguez Group 4 Phase 2] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1313008; FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (Distribution), (SUB.6201-01, 7802-04, 7805-11, 7805-13,7901-01, 7901-02, 7903-06)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Pole and Conductor Repair -Mayaguez Group 4 Phase 2
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1970
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

Final Scope

1313008

FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (Distribution), (SUB.6201-01, 7802-04, 7805-11, 7805-13,7901-01, 7901-02, 7903-06)

INTRODUCTION

This document is to submit for COR3 and FEMA approval the Detailed Scope of Work (SOW) for project 752540 Distributio Pole and Conductor Repair - Mayagüez Group 4 - Phase 2 Project under DR- 4339-PR Public Assistance. The documer provides a detailed project description, including scope, schedule, cost estimates and Environmental and Historic Preservation (EHP) requirements. 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 under the Transmission and Distribution Operations & Maintenance Agreement betweer Puerto Rico Electric Power Authority (PREPA), the Puerto Rico Public-Private Partnerships Authority (P3A), and LUMA Energ and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A, which collectively provides the

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

Facilities

Facilities Description

The interconnected and inter-functional distribution feeders (sites) that are the object of this scope of work are part of the electrical distribution system in the Mayagüez Region. 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 each feeder's mainline backbone.

Facilities List

The table below describes seven distribution feeders being replaced as part of the project. The table identifies the GPS location of the line segments, the voltage level, and an indication of the extent of work by identifying the number of poles to be replaced.

Name	Feeder Number	# Of Poles to Replace	GPS Start	GPS End	Phase	Voltage Level (kV)	Constructed Date
LAS MARIAS, SUB. 6201	6201-01	88	[redacted]	[redacted]	1 Phase	4.16	More than 20 years
SAN SEBASTIAN, SUB. 7802	7802-04	29			1 Phase	4.16	More than 20 years
SAN SEBASTIAN, SUB. 7805	7805-11	83			1 Phase	13.2	More than 20 years
SAN SEBASTIAN, SUB. 7805	7805-13	69			1 Phase	13.2	More than 20 years
LARES, SUB. 7901	7901-01	24			1 Phase	4.16	More than 20 years
LARES, SUB. 7901	7901-02	11			1 Phase	4.16	More than 20 years
LARES, SUB. 7903	7903-06	1			1 Phase	13.2	More than 20 years

PROJECT SCOPE OF WORK

The project's scope is the replacement of poles and the repair of conductors for specific feeders in Mayagüez region to be performed under the "Proposed 428 Public Assistance Scope of Work". Each work type specific to said scope of work for this group is included below.
The proposed restoration includes the replacement of eligible disaster damage up to required codes and standards and the request to upgrade undamaged infrastructure to fully effectuate the restoration of disaster-damaged components and restore the system's function to an approved industry standard. The Scope of Work consists of the removal and replacement of the following infrastructure to restore this facility to codes and standards.

A. Proposed 428 Public Assistance Scope of Work

Feeder 6201-01 Scope:

Remove	Quantity	Install	Quantity

30' WOOD	2	45FT S5.7 GALV STEEL	2
35' WOOD	55	45FT S5.7 GALV STEEL	55
40' WOOD	8	45FT S5.7 GALV STEEL	9
45' WOOD	3	45FT S5.7 GALV STEEL	3
35' WOOD	14	50FT S8 GALV STEEL	14
40' WOOD	4	50FT S8 GALV STEEL	4
55' WOOD	1	50FT S8 GALV STEEL	1

Feeder 7802-04 Scope:

Remove	Quantity	Install	Quantity
30'WOOD	1	45FT S5.7 GALV STEEL	1
35' WOOD	20	45FT S5.7 GALV STEEL	20
40' WOOD	3	45FT S5.7 GALV STEEL	3
35' WOOD	2	45FT S5.7 GALV STEEL	2
40' WOOD	2	45FT S5.7 GALV STEEL	2
45' WOOD	1	45FT S5.7 GALV STEEL	1

Feeder 7805-11 Scope:

Remove	Quantity	Install	Quantity
30' WOOD	1	45FT S5.7 GALV STEEL	1
35' WOOD	55	45FT S5.7 GALV STEEL	55
40' WOOD	12	45FT S5.7 GALV STEEL	12
40' CONCRETE	1	45FT S5.7 GALV STEEL	1
40' WOOD	3	45FT S5.7 GALV STEEL	3
35' WOOD	8	50FT S8 GALV STEEL	8

45' WOOD	3	50FT S8 GALV STEEL	3

Feeder 7805-13 Scope:

-

Remove	Quantity	Install	Quantity
35' WOOD	1	45FT S5.7 GALV STEEL	1
40' WOOD	57	45FT S5.7 GALV STEEL	57
45' WOOD	3	45FT S5.7 GALV STEEL	3
40' WOOD	7	50FT S8 GALV STEEL	7
45' WOOD	1	50FT S8 GALV STEEL	1

Feeder 7901-01 Scope:

Remove	Quantity	Install	Quantity
35' WOOD	13	50FT S8 GALV STEEL	13
35' CONCRETE	3	45FT S5.7 GALV STEEL	3
40' WOOD	7	45FT S5.7 GALV STEEL	7
35' WOOD	1	45FT S5.7 GALV STEEL	1

Feeder 7901-02 Scope:

Remove	Quantity	Install	Quantity
35' WOOD	6	45FT S5.7 GALV STEEL	6
40' WOOD	1	45FT S5.7 GALV STEEL	1
35' WOOD	3	50FT S8 GALV STEEL	3
35' WOOD	1	55FT S8 GALV STEEL	1

Feeder 7903-06 Scope:

Remove	Quantity	Install	Quantity
40' CONCRETE	1	50FT S8 GALV STEEL	1

B. Scope Notes

The work includes the following actions:

A. Pole Replacement

1. Remove existing poles, including hardware, and install new poles, including hardware, in the exact location. If the replacement cannot be installed in the precise location, the pole will be installed within 3 feet.

2. All new poles will be installed in the existing locations. No new locations are included in this scope of work. For the depths of the poles to be installed, refer to **APPENDIX C—Project Considerations**, column C (Soil area and depth impact).

3. The existing foundation will be removed and replaced with a new concrete foundation base as per Distribution Construction Standards (Concrete Base Standard). The maximum auger width to be used is 42" and the maximum depth to be drilled is 15feet. Refer to **APPENDIX C – Project Considerations** column I (Concrete Foundation) for specific locations where this work applies.

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

5. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to 10 feet 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. The costs related to Vegetation clearance procedures are in projects [727562] FAASt [Region 5 -Mayaguez Group C] (Vegetation, [728832] FAASt [Region 5 - Mayaguez Group A High Density (Vegetation) and, [750068] FAASt [Region 5 -Mayaguez Group A] Low Density (Vegetation). The vegetation removal process will be managed according to federal and state regulations.

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

B. Material Disposal:

1. 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 authorized facilities per applicable federal and state regulations. Refer to the *Waste Management Plan* in the applicant profile.

2. Debris to be removed includes *Waste Management Plan* in the applicant profile.

3. Transformers will be contained and returned to LUMA in compliance with applicable federal, state, and local regulations. Removing the transformer will require testing the existing oil for PCB levels. The oil will be drained and delivered to the authorized waste disposal site per environmental regulations. Refer to the *Waste Management Plan* in the applicant profile.

C. Access Roads:

1. Poles are close to the roads and are site accessible with existing access points at the established locations. **The construction of access roads is not required for this scope of work.** Refer to **APPENDIX C—Project Considerations** in column G, "Site Accessible."

D. Staging Area:

1. All materials are stored and dispatched from the Mayagüez Regional Warehouse. Refer to *Warehouse Locations* in the applicant profile. No additional or temporary staging areas are required.

E. Fill, Gravel, Sand, etc.

1. Fill, gravel, and sand materials will be obtained from an approved supplier as referenced in the LUMA Vendor Directory List in applicant profile. LUMA will retain and make available for review the documentation provided by material suppliers.

F. List of Equipment to be used:

1. 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.

2. Vegetation will be brushed utilizing machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper.

G. Specific List of Permits Required:

1. DTOP Endorsements and Municipality Notifications.
2. Excavation and Demolition Notification in the Department of Transportation and Public Works Agency - (DTOP).

B. Proposed 406 Hazard Mitigation Grant Program Scope of Work

406 Hazard Mitigation Proposal
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.

PROJECT COST ESTIMATE

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 known risks. For more details, refer to **APPENDIX B – Detailed Cost Estimate**.

COST ESTIMATE			
Cost Element	**428**	**406**	**PROJECT TOTAL**
PLANNING	**$717,774.14**	**$-**	**$717,774.14**

MANAGEMENT	**$273,437.77**	**$-**	**$273,437.77**
Mayaguez Group 4 - Phase 2	**$8,487,642.91**	**$-**	**$8,487,642.91**
COST TOTALS	**$9,478,854.81**	**$-**	**$9,478,854.81**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		
FAASt ALLOCATIONS	**FAAST PROJECT #752540 TOTAL:**		**$7,111,613.91**
FAASt A&E # 335168 TOTAL	**$991,211.90**	**$-**	**$991,211.90**
FAASt E&M #673691 TOTAL	**$1,376,029.00**	**$-**	**$1,376,029.00**

Work To Be completed: $9,478,854.81

A&E Deduction (Global A&E FAASt# 335168): $991,211.90

E&M Deduction (FAASt# 673691): $1,376,029.00

Project Total Cost (FAASt Project# 805521): $7,111,613.91

Project Notes:

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

2. For additional information of detailed SOW please refer to document labeled: 752540-DR4339PR-Detailed SOW Mayaguez Group 4 - Phase 2 Rev0 428-1.pdf

3. For detailed Cost Estimate please refer to document labeled: 752540-DR4339PR-Appendix B - Detailed Cost Estimate - Mayaguez Group 4 Phase 2 Rev0 428.xlsx

4. A&E cost included in this project will be reduced from this project and obligated under the FAASt Project #335168, A&E, as show in in the table above. The A&E project was obligated to track and account for cost associated with individual FAASt projects.

5. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials, as shown in the table above. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project.

APPENDIX A - Structure Coordinates

APPENDIX B - Detail Cost Estimate

APPENDIX C - Project Considerations

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
9001	1	Lump Sum	$9,478,854.81	Uncompleted
3510	1	Lump Sum	($991,211.90)	Uncompleted
9001	1	Lump Sum	($1,376,029.00)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$7,111,613.91
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$7,111,613.91
Federal Share (90.00%)	$6,400,452.52
Non-Federal Share (10.00%)	$711,161.39

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

4/30/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

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 -Mayaguez Group 4 Phase 2] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (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.
- 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. 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. 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.

- 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 Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and execute orders prior to a subrecipient or their contractor commencing 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 closeout.
- ESA 1: The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- ESA 2: Puerto Rican boa (PR boa; Chilabothrus inornatus) for Feeders 6201-01, 7802-04, 7805-11, 7805-13, 7901-01, 7901-02 and 7903-06: 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.
- ESA 3: 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. 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 Services 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
- ESA 4: Amazona vittata (Puerto Rican Parot) for Feeders 6201-01, 7805-11, 7901-01, and 7901-02. And Buteo platypterus brunnescens (Puerto Rican broad-winged hawk) for Feeders 6201-01, 7901-01, and 7901-02: 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: &#65533; Puerto Rican parrot: February-June. &#65533; Puerto Rican plain pigeon: April-September. &#65533; Puerto Rican broad-winged hawk: December-June. &#65533; Puerto Rican sharp-shinned hawk: December-June. &#65533; Puerto Rican nightjar: February-August. &#65533; Elfin-woods warbler: March-June. &#65533; Yellow-shouldered blackbird: February-November. 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

- 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.
- ESA 5: Cordia bellonis for feeders 7805-13 and 7901-01 and Goetzea elegans (Beautiful Goetzea) for feeder 7805-13: 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.
- ESA 6: 34. The Puerto Rican harlequin butterfly (Atlantea tulita) for Feeders 6201-01, 7802-04, 7805-11, 7805-13, 7901-01, and 7901-02: 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.
- ESA 7: 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: - Clearly mark the host plant with flagging tape. -

Establish a 10-meter (32-foot) buffer zone around the bush for its protection. - Eggs are typically found on the prickly bushs 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. - 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&#65533;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: - 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

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Pole and Conductor Repair -Mayaguez Group 4 Phase 2] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:27 PM PDT

Review Comments

Reviewed, found eligible and reasonable - 09.12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/18/2025 12:45 AM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

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 $7,111,613.91 for subaward number 107999 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.

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	9/25/2025	$6,400,452.52	90%	Accepted	4339DRPRP01079991

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	757694 **P/W #** 108036	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Automation Program Group 27] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1399048; FAASt [Automation Program Group 27: Arecibo Feeders: 9101-03, 9101-04, 9105-06, 9201-02] (Distribution)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Automation Program Group 27
- **Facility Description:** Arecibo Feeders: 9101-03, 9101-04, 9105-06, 9201-02
- **Approx. Year Built:** 1980
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

Final Scope

1399048

FAASt [Automation Program Group 27: Arecibo Feeders: 9101-03, 9101-04, 9105-06, 9201-02] (Distribution)

Introduction

This document is to submit for approval a Detailed Scope of Work ("SOW") to COR3 and FEMA for the Transmission and Distributior 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 followin 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 disaster-related damage. Although the intent is to deploy automation equipment throughout PREPA's transmission and distribution ("T&D") system, the Program is broken into multiple projects being implemented across the island on both transmission and distribution systems. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The individual projects are interconnected and enhance each other, but each can also be implemented independent of each other, and each confers benefits independently. Automation is necessary to restore the T&D 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 757694 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 reclosers, their communication links, and the 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 damage in the event of future hurricanes. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders 9101-03, 9101-04, 9105-06, and 9201-02.

Key components of this project are (1) pole replacements, (2) the three-phase reclosers, single-phase reclosers, and (3) the 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 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 not, 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. 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, ensuring 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.

Three-Phase Recloser: 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. The recloser's wireless communication capability will provide connectivity to LUMA's EMS so the system operator knows their status and can remotely control them. Deployment of the wireless communication devices includes configuration, testing, and commissioning of the wireless communication device, all networking devices, data acquisition, and control systems that form the connectivity path of the recloser to the EMS.

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 damage from future disasters. In this project we are installing seven three-phase reclosers.

Single-Phase Reclosers: A single-phase recloser is a single protection device with one switch that can open to interrupt fault currents and automatically reclose to restore power. 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 single-phase or two-phase distribution feeder and distribution lines branching from the feeder. Single-phase reclosers will also be used on feeders with three-phases if fault currents are low at the location. In this project we are installing a total of sixty single-phase reclosers.

(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 model.

Data sent to the EMS aides the grid operator in making 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. Installation of the three-phase reclosers and the communicating fault current indicators (communications ready) is critical for the EMS to efficiently mitigate the loss of service and potential damages in future disasters.

This project's scope does not contain fiber optics or communication capability that is included in other projects. This project is distinguishable from projects that include fiber optics as these feeders are using cellular technology for communications with the operations center. LUMA has developed this scope for reclosers and their associated hardware only. The lack of fiber optics as a method of transmitting information in this scope of work does not prevent or limit the monitoring capabilities of the reclosers and cFCIs or the automation capabilities of the reclosers on this feeder, nor does it prohibit the incorporation of fiber optics at a later date.

3.0 FACILITIES

3.1 Facilities Description

The facilities listed below are part of the PREPA's electric distribution system. All feeders originate from a substation (GPS Start) and serve customers along the route to various locations (GPS End). The coordinates shown below represent the mainline backbone of each feeder.

To avoid duplication of work across projects, LUMA reviewed the FIDs identified for work across distribution programs. The analysis did not identify any poles on this feeder, where LUMA is installing Distribution Automation ("DA") devices, that require disaster-related replacement. Accordingly, LUMA has not initiated any rebuild projects for this feeder under the Distribution Rebuild Program (also referred to as the "D-Line Program"). LUMA also confirmed that none of the poles on this feeder, which will be replaced under the Pole and Conductor Repair Program (also referred to as the "D-Pole Program"), will be replaced again under the DA Program. Because the poles in the DA program are not identified for replacement in either the D-Line or D-Pole Programs and the only cause for their replacement is the proper execution of mitigation measures, the pole replacement is included in the 406 Hazard Mitigation scope of work of this project. This allocation is consistent with the illustrated scenarios provided in the DA Program position paper and LUMA's Resilience Plan. To further address any concerns regarding the duplication of work across other proposed or planned Hurricane Maria distribution projects, LUMA provides Appendix D which contains a list of all FIDs on the feeder upon which FEMA-eligible work will be performed and the associated proposed scope of work under each distribution program.

Please refer to the ***APPENDIX D - LUMA Active Projects*** which shows no duplication of scope elements.

3.2 Facilities List

Arecibo	9101-03	[redacted]	[redacted]
Arecibo	9101-04		
Arecibo	9105-06		
Arecibo	9201-02		
Name	**Feeder Number**		

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 breakdown of the scope of work for the "Proposed 428 Public Assistance Scope of Work" proposed for feeders of this group.

4.1 Proposed 428 Public Assistance Scope of Work

Feeder 9101-03

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
7547930	[redacted]	(60 FT CONCRETE POLE) (38KV STD DELTA TAN) (CP-C8)	(70' S8 12-SIDED GALVANIZED STEEL POLE) (38KV STD VERT DDE) (CP-C6-XARM) (REC-2-1)	• Remove and dispose 60' concrete pole. • Replace with 70' S8 12-Sided galvanized steel pole. -Replace 38kv framing. • Remove, dispose and replace primary framing. • Install (2) 1kva transformers (8.32 – 4.80kv, 120v) from source and load Side. • Install (1) three-phase recloser 9101-03A. • Install and Commission Three-Phase radio communication kit for three-phase recloser.

1001750017	[redacted]	(45 FT H4 CONCRETE POLE) (CP-C6XARM(QTY=2) (ASSY1509(QTY=2))	(60' S8.5 12-sided GALVANIZED STEEL POLE) (CP-C6-ARM(QTY2) (CP-A5(QTY=2)) (REC-3- A(QTY=2)	• Remove and dispose 45' H4 concrete pole. • Replace with 60' S8.5 12-sided galvanized steel pole. • Remove, dispose and replace primary framing. • Install (1) Single-phase phase recloser 200a for segment fid1001750233. • Install (1) Single-phase recloser 200a for segment fid1001750237. • Remove and dispose (2) fuses.
5430781	[redacted]	(40 FT H3 CONCRETE POLE) (CP-A6) (CP-A5) (K- 7-4) (ASSY 1509) (E-1-2-3) (F-1-3)	(45' S5.7 12-SIDED GALVANIZED STEEL POLE) (REC-3-A) (CP-A6) (CP-A5) (K-7-4)	• Remove and dispose 40 ft h3 concrete pole. • Replace with 45' S5.7 12-Sided galvanized steel pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove and dispose downguys and anchor. • Install (1) Single-phase recloser. • Remove and dispose (1) fuse.
7133791	[redacted]	(60 FT WOOD POLE) (38KV STD DELTA TAN) (CP- C6-XARM) (CP-B5-XARM) (K-7-4) (ASSY 1509(QTY=2)) (STL-10) (E-1-2-3) (F-1-3)	(60' S8 12-SIDED GALVANIZED STEEL POLE) (CP-C6-ARM(QTY=2) (CP-B5-XARM) (K-7-4) (REC-3-B) (E-1-2-3) (F- 1-3) (STL-10)	• Remove and dispose 60 ft wood pole. • Replace pole with 60' S8 12-Sided galvanized steel pole. • Remove and dispose 38kv framing. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove, dispose and replace downguys. • Remove, dispose and replace anchor. • Install (2) Single-phase recloser 200a. • Remove and dispose (2) fuses.
5431207	[redacted]	(ASSY-1509 (QTY=2)) (42" CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=2))	• Remove and dispose (2) fuses.

5431149	[redacted]	(35 FT C5 WOOD POLE) (CP-B6-XARM) (K-7-4) (STL-10) (E-1-2-3(QTY=2)) (F-1-3(QTY=2))	(45' S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-B6-XARM) (K-7-4) (STL-10) (E-1-2-3) (F-1-3) (REC-3-B)	• Remove and dispose 35 ft c5 wood pole. • Replace with 45' S5.7 12-Sided galvanized steel pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove, dispose and replace streetlight. • Remove, dispose and replace downguys. • Remove, dispose and replace anchor. • Install (2) single-phase recloser 200a.
20373118	[redacted]	(60 FT CONCRETE POLE) (38KV STD DELTA TAN(QTY=2)) (CP-A5-XARM) (T-1) (K-7-B) (42" CROSSARM) (ASSY 1509)	(60' S8 12-SIDED GALVANIZED STEEL POLE) (CP-C6-ARM(QTY=2)) (CP-A5) (K-7-B) (T-1) (REC-3-A)	• Remove and dispose 60 ft concrete pole. • Replace with 60' S8 12-Sided galvanized steel pole. • Remove and dispose 38kv framing. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Transfer transformer. • Install (1) Single-phase Recloser 200a. • Remove and dispose (1) fuse .
5430234	[redacted]	(ASSY 1509 QTY= 1)	(REC-3-A)	• Install (1) Single-phase recloser 200a. • Remove and dispose (1) fuse.
5430241	[redacted]	(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuses. • Close Jumpers
20375611	[redacted]	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose (1) fuse. • Close Jumpers.
5430271	[redacted]	(40 FT C3 WOOD POLE) (CP-C6- XARM) (STL-10) (K-7-4) (T-1)	(50' S8 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (CP-A5) (STL-10) (K-7-4) (T-1) (REC-3-C)	• Remove and dispose 40 ft c3 wood pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove, dispose and replace streetlight. • Transfer transformer. • Install (3) Single-phase recloser 200a.

5430412	[redacted]	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose (1) fuse.
7836578	[redacted]	(65 FT CONCRETE POLE) (38KV STD DELTA TAN) (CP- C1) (S-1) (K-6) (ASSY 1506 FIG. A(QTY=2))	(70' S8 12-SIDED GALVANIZED STEEL POLE) (38KV STD DELTA TAN) (CP-C1) (S-6) (K-6) (REC-3-C) (ASSY 1506 FIG. A(QTY=2))	• Remove and dispose 65' concrete pole. • Replace with 70' S8 12-Sided galvanized steel pole. • Remove, dispose and replace 38kv framing. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove, dispose and replace neutral. • Install (3) single-phase Recloser 200a.
N/A	[redacted]	NONE	(LABOR, cFCI(QTY=3)	• Install (3) communicating Fault current indicator on segment id 7836598
N/A	[redacted]	NONE	(LABOR, cFCI(QTY=3)	• Install (3) communicating Fault current indicator on segment id 8316788

Feeder 9101-04

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
New Pole	[redacted]	NONE	(50' S8 12-SIDED STEEL POLE) (CP-C6-XARM) (K-7 FIG. A) (3/0 TPX(QTY=30FT)) (REC-2)	• Install new 50' S8 12-sided galvanized steel pole. • Install Primary framing. • Install secondary Framing. • Feed recloser from source Side secondary. • Install (1) three-phase Recloser 9101-04A in radial circuit. • Install and Commission Three-Phase radio communication kit for three-phase recloser
5429268	[redacted]	ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuses. • Close jumpers.

5428504	[redacted]	(45 FT H4 CONCRETE POLE) (CP-C6-XARM) (K-4) (E-1-2-3) (F-1-3)	(50' S8 12-SIDED STEEL POLE) (CP-C6-XARM) (K-4) (3/0 TPX(QTY=180FT)) (REC-2)	• Remove and dispose 45' H4 concrete pole. • Replace with 50' S8 12-Sided Galvanized steel pole. • Remove, dispose and replace primary Framing. • Remove, dispose and replace secondary Framing. • Remove and dispose downguy. • Remove and dispose Anchor. • Install triplex from pole Fid: 5429254. • Feed recloser from Source side secondary. • Install (1) three-Phase recloser 9101-04B in radial Circuit. • Install and Commission Three-Phase radio communication kit for three-phase recloser
10151137	[redacted]	(ASSY-1509 (QTY=3)) (42" CROSSARM)	LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuse • Close jumpers.
1001542462	[redacted]	(ASSY-1509 (QTY=2)) (42" CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=2))	• Remove and dispose (2) fuses. • Close jumpers.
5430024	[redacted]	(40 FT C3 WOOD POLE) (CP-C1- XARM) (T-1) (K-1) (STL-10)	(50' S8 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (T-1) (K-6) (STL-10) (REC-3- C)	• Remove and dispose 40' C3 wood pole. • Replace with 50' S8 12-Sided Galvanized steel pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Transfer transformer. • Remove, dispose and replace streetlight. • Install (3) Single-phase recloser 200a.
5429929	[redacted]	(ASSY-1509 (QTY=3)) (42" CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose crossarm. • Remove and dispose (3) fuses • Close Jumpers.

10151128	[redacted]	(CP-C6-XARM) (ASSY-1509(QTY=3)) (72" CROSSARM) (T-1) (STL-10) (E-1-2-3) (F-1-3)	(CP-C6-XARM) (REC-3- C) (T-1) (STL-10) (E-1- 2-3) (F-1-3)	• Reuse existing concrete pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Transfer transformer. • Remove, dispose and replace streetlight. • Remove, dispose and replace downguy. • Remove, dispose and replace anchor. • Install (3) Single-phase recloser 200a. • Remove and dispose crossarm. • Remove and dispose (3) fuses.	**Feeder 9105-06**
1001528484	[redacted]	(S-3) (T-1) (K-1) (E-1-2-3) (F-1-3)	(S-6) (REC-3-C) (T-1) (K-6) (E-1-2-3) (F-1-3)	• Reuse existing 50 ft h4 concrete pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace secondary framing. • Remove, dispose and replace downguy. • Remove, dispose and replace anchor. • Install (3) Single-phase recloser 200a.	
1001545601	[redacted]	(50 FT H4 CONCRETE POLE) (S-3) (CP-A5) (ASSY-1509(QTY=1)) (ASSY 1505 FIG. A) (E-1-2-3(QTY=3)) (F-1- 3(QTY=3))	(50' S8 12-SIDED GALVANIZED STEEL POLE) (S-6) (REC-3-C) (CP- A5) (ASSY 1505 FIG. A) (ASSY-1509 (QTY=1)) (E-1-2-3(QTY=3)) (F-1- 3(QTY=3))	• Remove and dispose 50' H4 concrete pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Remove, dispose and replace primary framing. • Remove, dispose and replace downguys. • Remove, dispose and replace anchors. • Install standoff bracket assembly. • Remove, dispose and replace branch line fuse. • Install (3) Single-phase recloser 200a.	
10079790	[redacted]	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose (1) fuse • Close Jumpers.	
6567748	[redacted]	(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose (1) fuse. • Close jumpers.	
5429235	[redacted]	(ASSY-1509 (QTY=3)) (42" CROSSARM)	(REC-3-C)	• Install (3) single-phase recloser 200a in existing 45 ft h6 concrete pole. • Remove and dispose (3) fuses. • Remove, dispose and replace Crossarm.	

5429231	[redacted]	(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuse. • Close Jumpers.
5429477	[redacted]	NONE	(LABOR, cFCI (QTY=3))	• Install (3) Communicating Fault Current Indicator on segment FID 8341477.
5428611	[redacted]	NONE	(LABOR, cFCI (QTY=3))	• Install (3) Communicating Fault Current Indicator on segment FID 8311302.

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
NEW POLE	[redacted]	NONE	(70' S-8.5 12-SIDED GALVANIZED STEEL POLE) (38KV SC TANGENT DELTA SUSPENSION) (REC-2-1-1 VER 1) (OPS-CP-C6-XARM) (K-5)	• Install new 70' S8.5 12-sided galvanized stee pole as mid span. • Replace Primary and secondary framing. • Install (1) Three-phase recloser 9105-06A on a Radial configuration. • Install and Commission Three-Phase radio communication kit for three-phase recloser • Install 60ft of Secondary conductor to feed source Side to feed recloser.
6312771	[redacted]	(45'-H4 CONCRETE POLE) (CP-C6-XARM) (K- 4) (ASSY-1509(QTY=3)) (STL-10)	(45' S-5.7 12-SIDED GALVANIZED STEEL POLE) (CP-C6- XARM) (REC-3-C) (K-6) (E-1-2-3(QTY=1)) (F-1-3(QTY=1)) (STL-10) (K-7- B)	• Remove and dispose 45' H4 concrete pole. • Replace pole with 45' S5.7 12- Sided galvanized steel pole. • Remove and dispose (3) fuses. • Remove, dispose and replace framings. • Install (3) Cutout Mounted Single-Phase reclosers. • Install (1) anchor. • Install (1) down guy. • Remove, dispose and replace streetlight.
6312657	[redacted]	(45'-H4 CONCRETE POLE) (CP-C6-XARM) (CP-C5-XARM) (ASSY- 1509(QTY=3))	(50' S-8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6- XARM) (REC-3-C) (CP-C5- XARM)	• Remove and dispose 45' H4 concrete pole. • Replace with 50' S8.5 12-Sided galvanized steel pole. • Remove and dispose (3) fuses. • Install (3) Cutout Mounted Single-Phase reclosers.

Feeder 9201-02

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
NEW POLE	[redacted]	NONE	(60' S-8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6- XARM) (REC-3-C) (CP-C1) (K-1)	• Install a new 60' S8.5 12-Sided galvanized steel pole in new location mid span. • Install framings. • Install (3) Cutout Mounted Single-Phase Reclosers.
6565893	[redacted]	(CP-C1) (K-5) (STL-10)	(CP-C6-XARM) (REC-3-C) (K-5) (STL-10)	• Use existing 50'-h6 concrete pole. • Remove, dispose and replace primary and secondary framing. • Install (3) cutout mounted single-phase reclosers. • Remove, dispose and replace streetlight.
6565499	[redacted]	(CP-C6-XARM) (ASSY-1509(QTY=3)) (K-5) (STL-10)	(CP-C6-XARM) (REC-3-C) (STL-10) (K-5)	• Use existing 40'-h6 concrete pole. • Remove and dispose (3) fuses. • Replace with (3) Cutout mounted Single-Phase reclosers. • Remove, dispose and replace framings. • Install (3) cutout mounted single-phase reclosers • Use existing anchor and downguy. • Remove, dispose and replace streetlight.
6565891	[redacted]	(ASSY-1509(QTY=3))	(LABOR&REPAIR)	• Remove and dispose (3) Fuses.
N/A	[redacted]	NONE	(LABOR, cFCI) (QTY=3)	• Install (3) Communicating Fault Current Indicator on segment id 6927825.
N/A	[redacted]	NONE	(LABOR, cFCI) (QTY=3)	• Install (3) Communicating Fault Current Indicator on segment id 1000485071.

NEW POLE	[redacted]	(NONE)	(60' S8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C1) (S-6) (REC-2-2 VER.6) (E-1-2-3(QTY=2) (F-1-3 (QTY=2))	• Install new 60' S8.5 12-Sided galvanized pole as midspan. • Install primary framing. • Install (1) three-phase recloser 9201-02A. • Install and Commission Three-Phase radio communication kit for three-phase recloser • Install (2) 1kva transformer (4.80/8.32 kv - 120/240 v) for source & load side. • Install (2) anchors and (2) Down guys
6572390	[redacted]	(55"H5 CONCRETE POLE) (CP-C6-XARM) (S-6) (K-5) (STL-10) (E- 1-2-3)	(60' S8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (S-6) (REC-2-2 VER.6) (K- 5) (STL-10) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2))	• Remove and dispose 55' H5 Concrete pole. • Replace pole with a 60' 8.5 12-Sided galvanized steel pole. • Remove, dispose and replace primary framing. • Install (1) three-phase recloser 9201- 02B. • Install and Commission Three-Phase radio communication kit for three-phase recloser • Install (1) 1kva transformer (4.80/8.32 kv - 120/240 v) for source side to feed recloser in radial configuration. • Install (2) anchor and (2) down guy. • Transfer streetlight.
NEW POLE	[redacted]	(NONE)	(50' S8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (REC-2-1 VER.6) (K-5) (K- 7-A)	• Install new pole midspan: 50' S8.5 12-sided galvanized steel pole. • Install primary framing. • Install three phase recloser 9201-02C. • Install and Commission Three-Phase radio communication kit for three-phase recloser • Use existing secondary wire on source side to feed recloser in radial Configuration.
1000597556	[redacted]	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) Fuses.
6572387	[redacted]	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) Fuses.
6572118	[redacted]	(ASSY 1509 (QTY=1))	(LABOR & REPAIR)	• Remove and dispose (1) Fuse.

6572822	[redacted]	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) fuses.
1000568716	[redacted]	(ASSY 1509 (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) Fuses.
5433195	[redacted]	(ASSY 1509 (QTY=3))	(LABOR AND REPAIR)	• Remove and dispose (3) Fuses.
10095035	[redacted]	(40'-H3 CONCRETE POLE) (S-6) (ASSY 1509 QTY=3)) (K-5)	(45'-S5.7 12-SIDED GALVANIZED STEEL POLE) (S-6) (REC-3 C)	• Remove and dispose 40' H3 Concrete Pole. Replace 45' S5.7 12-sided galvanized steel pole. • Remove, dispose and replace primary framing. • Remove and dispose (3) fuses. • Install (3) Cutout Mounted Single-Phase recloser.
1000569533	[redacted]	(55'-H6 CONCRETE POLE) (CP-C1 (QTY=2)) (ASSY 1509 QTY=3)	(60'-S8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM (QTY=2)) (REC- 3 C)	• Remove and dispose 55' H6 concrete pole. • Replace 60' S8.5 12-Sided Galvanized steel pole. • Remove, dispose and replace primary framing. • Install (3) Cutout Mounted single-phase recloser. • Remove and dispose (3) fuses.
6572603	[redacted]	(40'-H3 CONCRETE POLE) (CP-A6) (K-5) (K-6) (ASSY 1509 (QTY=1))	(45'-S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-A6) (REC-3A) (K-6) (K-5)	• Remove and dispose 40' Concrete pole. • Replace pole with a45' S5.7 12-Sided galvanized steel pole. • Remove, dispose and replace primary and secondary framing. • Remove and dispose (1) fuse. • Install (1) Cutout Mounted Single-Phase Recloser.
6572706	[redacted]	(40'-CLASS 5 WOOD POLE) (CP-A1)	(45'-S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-A6) (REC-3 A)	• Remove and dispose 40' Class 5 Wood pole. • Replace pole with a 45' S5.7 12-Sided Galvanized steel pole. • Remove, dispose and replace primary framing. • Remove and dispose (1) fuse. • Install (1) Cutout Mounted Single-Phase recloser.

20373499	[redacted]	(50'-H6 CONCRETE POLE) (CP-C6-XARM) (S-6) (CP-A5) (K-6) (STL-10)	(70'-S8 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (S-6) CP-A5) (REC-3 A) (K-6) (E-1-2-3 (QTY=4)) (F-1-3 (QTY=2)) (F-4-2 (QTY=1)) (STL-10)	• Remove and dispose 50' Hp Concrete Pole. • Replace with 70' S8 12-Sided Galvanized Steel Pole. • Remove, dispose and replace primary framing. • Remove and dispose (1) fuse. • Install (1) Cutout Mounted Single-Phase recloser. • Transfer streetlight.
20373529	[redacted]	(45'-H4 CONCRETE POLE) (S-6) (K- 7 A) (STL-10)	(50'-S8.5 12-SIDED GALVANIZED STEEL POLE) (S-6) (REC-3 C) (K-7 A) (STL- 10) (K-5 (QTY=2))	• Remove adispose 45' H4 Concrete Pole. • Replace pole with a 50' S8.5 12-Sided galvanized steel pole. • Remove, dispose and replace primary and Secondary framing. • Install (3) Cutout mounted Single-Phase recloser. • Transfer streetlight.
5433356	[redacted]	(45'-H4 CONCRETE POLE) (CP-C6- XARM) (ASSY 1509 (QTY=1))	(45'-S5.7 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM) (REC-3 C)	• Remove and dispose 45' H4 Concrete Pole. • Replace pole with a 45' S5.7 12-Sided Galvanized steel pole. • Remove, dispose and replace primary Framing. • Remove and dispose (3) fuses. • Install (3) Cutout Mounted Single-Phase Recloser.
6572619 SEGMENT FID **17276084**	[redacted]	(ASSY 1509 (QTY= 1))	(LABOR & REPAIR)	• Remove and dispose (1) Fuse.
6572619 SEGMENT FID **17276078**	[redacted]	(ASSY 1509 (QTY= 1))	(LABOR & REPAIR)	• Remove and dispose (1) Fuse.
10098053	[redacted]	(ASSY 1509 (QTY= 1))	(LABOR & REPAIR)	• Remove and dispose (1) Fuse.
20373522	[redacted]	(ASSY 1509 (QTY= 3))	(LABOR & REPAIR)	• Remove and dispose (3) Fuses.
5432568	[redacted]	(ASSY 1509 (QTY= 1))	(LABOR & REPAIR)	• Remove and dispose (1) Fuse.
5432791	[redacted]	(ASSY 1509 (QTY= 2))	(LABOR & REPAIR)	• Remove and dispose (2) Fuses.

6573537	[redacted]	(40' WOOD POLE) (CP-C6-XARM) (T- 1) (STL-10) (K-5)	(60' S8.5 12-SIDED GALVANIZED STEEL POLE) (CP-C6-XARM (QTY=2) (T-1) (STL-10) (K-5)	• Remove and dispose 40' Wood pole. • Replace pole with a 60' S8.5 12-Sided Galvanized steel pole. • Remove, dispose and replace primary and Secondary framing. • Transfer transformer.
N/A	[redacted]	NONE	(LABOR, cFCI) (QTY=3)	• Install (3) Communicating Fault Current Indicator on Segment FID 17363209.
N/A	[redacted]	NONE	(LABOR, cFCI) (QTY=3)	• Install (3) Communicating Fault Current Indicator on Segment FID 17271528.

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 pole locations; there are 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. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual 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.

d. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to a 10 ft radius surrounding the surface of the pole, but not to exceed the width of the right-of-way. This is for the exclusive purpose of gaining access to the pole to conduct repairs. The vegetation removal process will be managed in accordance with federal and state regulations. The costs related to vegetation clearance procedures are covered in the following projects:

Feeder	Project Title
9101-03 9101-04 9105-06	727558 FAASt [Region 3 -Bayamon Group C] (Vegetation)
9201-02	728827 FAASt [Region 2 -Arecibo Group A] High Density (Vegetation)

e. All existing overhead conductors, poles, assemblies, and attached 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.

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

2) Debris will be separated and taken to an authorized 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, 681 Km, Islote Ward, Arecibo, PR. Coordinates are [redacted]. Refer to document *Warehouse Locations.*

5) Fill, gravel, and gand **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*.

7) Specific List of **Permits Required**:

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

Proposed 406 Hazard Mitigation Scope of Work

406 Hazard Mitigation Proposal
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.

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 may be subject to change. LUMA has allocated 10% of the project cost to mitigate potential known risks. For more details, refer to LUMA LPCERefer to **APPENDIX** *B - LUMAProject Cost Estimate.*

COST ESTIMATE			
Cost Element	**428**	**406**	**PROJECT TOTAL**
PLANNING	**$259,540.00**	**$-**	**$259,540.00**
MANAGEMENT	**$160,382.13**	**$-**	**$160,382.13**
Distribution Automation Group 27	**$3,128,627.98**	**$-**	**$3,128,627.98**
GENERAL CONDITIONS	**$164,042.76**	**$-**	**$164,042.76**
COST TOTALS	**$3,712,592.87**	**$-**	**$3,712,592.87**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		**$-**
	DE-OBLIGATION TO FAASt IF APPLICABLE		**$-**
FAASt ALLOCATIONS	FAAST PROJECT # 757694- 428		**$2,314,733.78**
	FAAST PROJECT # 757694- 406HM		**$-**
	FAAST PROJECT # TOTAL:		**$2,314,733.78**
	FAASt A&E # 335168 - 428		**$419,922.13**

	FAASt A&E # 335168 - 406 HM	**$-**
	~~**FAASt A&E # 335168 TOTAL**~~	~~**$419,922.13**~~
	FAASt E&M #673691 - 428	**$977,936.96**
	FAASt E&M #673691 - 406 HM	**$-**
	FAASt E&M #673691 TOTAL	**$977,936.96**

Work To Be completed: $3,712,592.87

A&E Deduction (Global A&E FAASt# 335168): $419,922.13

E&M Deduction (FAASt# 673691): $977,936.96

Project Total Cost (FAASt Project# 805521): $2,314,733.78

Project Cost Estimate notes:

1. A&E cost included in this project will be reduced from this project and obligated under the FAASt Project #335168 A&E, as shown in the table above. The A&E project was obligated to track and account for cost associated with individual FAASt projects.
2. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project Group 27 Automation Program FAASt 757694.

Project Notes:

1. Refer to detailed SOW provided in document labelled "*757694- DR4339-PR- DSOW- Group 27 - Revision 03.pdf*".

2. For reference documents Appendix A thru D, see files labeled:

ATTACHMENT

757694-DR4339PR-APPENDIX A - Initial Scope of Work.pdf

757694-DR4339PR-APPENDIX B - LUMA Project Cost Estimate.xlsx

757694-DR4339PR-APPENDIX C - Project Considerations.xlsx

757694-DR4339PR-APPENDIX D - LUMA Active Projects.xlsx

406 HMP Scope

Mitigation opportunities will be applied in a future version of the Permanent Work Project. In accordance with the Distribution Automation resolution document share with the applicant. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
9001	1	Lump Sum	$3,712,592.87	Uncompleted
9001	1	Lump Sum	($977,936.96)	Uncompleted
3510	1	Lump Sum	($419,922.13)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$2,314,733.78
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$2,314,733.78
Federal Share (90.00%)	$2,083,260.41
Non-Federal Share (10.00%)	$231,473.37

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

5/27/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

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 27] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Automation Program Group 27] (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.
- 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 Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and execute orders prior to a subrecipient or their contractor commencing 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 closeout.

- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- 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 for proper identification of wetlands. Under EO11990 (Protection of Wetlands); the applicant is responsible for coordinating with and obtaining any required Section 404 Permit(s) from the United States Army Corps of Engineers (USACE) prior to initiating work. The applicant shall comply with all conditions of the required 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.
- Conservation Measures for Chilabothrus inornatus (Feeders 9101-03, 9105-06, 9201-02, 9101-04): 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).
- Continue- Conservation Measures for Chilabothrus inornatus (Feeders 9101-03, 9105-06, 9201-02, 9101-04): 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 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

- The Applicant shall comply with one of the following conditions including any coordination (emails, letters, documented calls) pertaining to these compliance activities must be documented and maintained in the Applicant's permanent files. - Correspondence (email, letter, documented phone conversation, etc. from/with a representative from the U.S. Army Corps of Engineers (USACE) and/or State) indicating that the activity did not require a USACE/State permit authorization (at closeout); OR; - A copy of a permit authorization or compliance letter issued by the USACE/State for the specific project and scope of work. If the issued permit required that a compliance certification be submitted to the USACE following the completion of work, please provide a copy of that compliance certification as well; OR - All permits or Pre-Construction Notification (PCN) (at closeout).
- 1. The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 2. Unusable equipment, debris, white goods, scrap metal any other material shall be disposed in approved manner and location. In the event significant items are discovered during the implementation or development of the project the Applicant shall handle, manage, and dispose petroleum products, hazardous materials, and toxic waste in accordance with the requirements of the local and federal agencies. Noncompliance with these requirements may jeopardize receipt of federal funds. 3. The applicant is responsible to ensure damaged transformers are handled, managed, and disposed of in accordance with all federal and state laws and requirements. Downed electrical equipment may contain toxic and hazardous materials, such as polychlorinated biphenyls (PCBs), and may spill these materials if a rupture occurs. Applicant is responsible for screening transformers that do or may contain PCBs and the area where any related spill occurred. The applicant is then responsible to handle, manage, dispose of, or recycle damaged equipment and contaminated soil as appropriate. Where possible, temporary measures should be implemented to prevent, treat, or contain further releases or mitigate the migration of PCBs into the environment. If damaged equipment or material storage containers must be stored temporarily, containers should be placed on hardened surface areas, such as a concrete or an asphalt for no more than 90 days. Excavated contaminated material should be disposed of in accordance with federal and state laws and requirements.
- 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program Group 27] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:31 PM PDT

Review Comments

Reviewed, found eligible and reasonable - CLG 09.12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/19/2025 4:05 PM PDT

Review Comments

Recipient review completed. The applicant did not submit a mitigation proposal in this version; the mitigation proposal will be made in a future amendment. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

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 $2,314,733.78 for subaward number 108036 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.

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	9/25/2025	$2,083,260.41	90%	Accepted	4339DRPRP01080361

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	757697 **P/W #** 108038	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Automation Program Group 32] (TL / Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1399054; FAASt [Automation Program Group 32: Arecibo Region Feeders: 8005-01, 8101-02, 8101-03, 8103-01] (Distribution)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Automation Program Group 32
- **Facility Description:** Arecibo Region feeders: 8005-01, 8101-02, 8101-03, 8103-01
- **Approx. Year Built:** 1980
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

Final Scope

1399054

FAASt [Automation Program Group 32: Arecibo Region Feeders: 8005-01, 8101-02, 8101-03, 8103-01] (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 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 757697 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 reclosers, their communication kits, and the 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 8005-01, 8101-02, 8101-03, and 8103-01.

Key components of this project are (1) pole replacements, (2) the three-phase reclosers, single[1]phase reclosers, and (3) the 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 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 not, 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. 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, ensuring 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.

Three-Phase Recloser: 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. The recloser's wireless communication capability will provide connectivity to LUMA's EMS so the system operator knows their status and can remotely control them. It enables remote control and status visualization of the reclosers. Deployment of the wireless communication devices includes configuration, testing and commissioning of the wireless communication device, all networking devices, data acquisition and control systems that form the connectivity path of the recloser to the EMS.

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. In this project we are installing seven three-phase reclosers.

Single-Phase Reclosers: A single-phase recloser performs the same functions as a three[1]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. In this project we are installing a total of 49 single-phase reclosers.

(3) Communicating Fault Current Indicators

Communicating fault current indicators (cFCI) installed at strategic locations improve the outage management, restoration, and recovery process, specifically by decreasing the time required to detect and locate faults. The cFCI operates independently of the feeder reclosers. cFCI helps identify permanent and incipient faults in the distribution system and collects voltage and current data which can be used to detect system imbalance, prevent future issues due to harmonics, and help in building predictive failure models.

Data sent to the EMS aides the grid operator in making decisions on operations, management and restoration. The cFCI can be programmed to send automatic notifications/alarms based on user[1]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[1]phase reclosers and the communicating fault current indicators (communications ready) is critical for the Energy Management System ("EMS") to effectively mitigate the loss of service and potential damages in future disasters.

This project's scope does not contain fiber optics or communication capability that is included in other projects. This project is distinguishable from projects that include fiber optics as these feeders are using cellular technology for communications with the operations center. LUMA has developed this scope for reclosers and their associated hardware only. The lack of fiber optics as a method of transmitting information in this scope of work does not prevent or limit the monitoring capabilities of the reclosers and cFCIs or the automation capabilities of the reclosers on this feeder, nor does it prohibit the incorporation of fiber optics at a later date.

Facilities

3.1 Facilities Description

The facilities listed below are part of PREPA's T&D 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 the feeder at issue in this project.

To avoid duplication of work across projects, LUMA reviewed the FIDs identified for work across distribution programs. The analysis did not identify any poles on this feeder, where LUMA is installing Distribution Automation ("DA") devices, that require disaster-related replacement. Accordingly, LUMA has not initiated any rebuild projects for this feeder under the Distribution Rebuild Program (also referred to as the "D-Line Program"). LUMA also confirmed that none of the poles on this feeder, which will be replaced under the Pole and Conductor Repair Program (also referred to as the "D-Pole Program"), will be replaced again under the DA Program. Because the poles in the DA program are not identified for replacement in either the D-Line or D-Pole Programs and the only cause for their replacement is the proper execution of mitigation measures, the pole replacement is included in the 406 Hazard Mitigation scope of work of this project. This allocation is consistent with the illustrated scenarios provided in the DA Program position paper and LUMA's Resilience Plan.

To further address any concerns regarding the duplication of work across other proposed or planned Hurricane Maria distribution projects, LUMA provides Appendix D which contains a list of all FIDs on the feeder upon which FEMA-eligible work will be performed and the associated proposed scope of work under each distribution program. Please refer to the APPENDIX D - LUMA Active Projects to show no duplication of scope elements.

3 FACILITIES

3.2 Facilities List

Name	Feeder Number	GPS Start	GPS End
Utuado Arecibo Region	8005-01	[redacted]	[redacted]
Utuado Arecibo Region	8101-02		
Utuado Arecibo Region	8101-03		
Utuado Arecibo Region	8103-01		

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

Project Scope of Work

4.1 Proposed 428 Public Assistance Scope of Work Feeder 8005-01

Feeder 8005-01

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
1001817039	[redacted]	(45 FT C5 WOOD POLE) (CP-C12-XARM) (K-7-4) (STL-10) (E-1-2-3) (F-1-3)	(50 FT S8 STEEL POLE) (CPC6-XARM) (K-7-4) (STL-10) (REC-2)	· Remove and dispose 45' C5 Wood Pole. · Replace pole with 50' S8 12-sided galvanized steel pole. · Install (1) Three-Phase recloser 8005-01A in radial circuit. · Install and commission the radio communication kit for the three-phase recloser. · Remove, dispose, and replace primary and secondary framing. · Feed recloser from source side secondary. · Remove and dispose (1) downguy and (1) anchor. · Remove, dispose, and replace streetlight. · Remove and dispose (1) crossarm. · Remove and dispose (3) fuses.
1000590705	[redacted]	(ASSY-1509 (QTY=3))	LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) and close jumpers.
15835537	[redacted]	(45 FT H4 CONCRETE POLE) (S-6) (E-1-2-3) (F-1-3)	(50 FT S8 STEEL POLE) (S-6) (REC-2-2)	• Remove and dispose 45' H4 concrete pole. • Replace pole with 50' S8 12- sided galvanized steel pole. • Replace primary Framing. • Install (1) 1 Kva transformer (2.40/7.62kv 120v) from source side. • Install (1) three-phase recloser 8005-01B in radial circuit. • Install and commission radio communication kit for the three-phase recloser. • Remove, dispose, and replace primary framing. • Remove and dispose (1) downguy. • Remove and dispose (1) anchor.

1000602090	[redacted]	(40 FT C4 WOOD POLE) (S-6-2) (K-7-B) (STL-10) (ASSY-1509 (QTY: 2)	(50 FT S8 STEEL POLE) (S-6-2) (K-7-B) (STL-10) (REC-3-B)	• Remove and dispose 40 ft C4 wood pole. • Replace with 50’ S8 12-sided galvanized steel pole. • Install (2) Single-phase recloser 200a. • Remove, dispose, and replace primary and secondary framing • Remove, dispose, and replace streetlights. • Remove, dispose, and replace (1) crossarm. • Remove and dispose (2) fuses.
1000594170		N/A	(REC-3-C)	• Install (3) single-phase recloser on existing 45’ concrete pole.
1001816106		45 FT S5.7 STEEL POLE) (CP-C6-XARM) (REC-3-C)	(45 FT S3 STEEL POLE) (CP-C12-XARM)	• Remove and dispose 45’ S3 steel pole. • Replace with 45’ S5.7 12-Sided steel pole. • Install (3) single-phase recloser 200a. • Remove, dispose, and replace the primary framing. • Remove, dispose, and replace (1) crossarm. • Remove and dispose (3) fuses.
15836147		(ASSY-1509 (QTY=3))	(LABOR, CLOSE JUMPERS(QTY=3))	• Remove and dispose (1) crossarm. • Remove and dispose (3) fuses.
15835827		35 FT C4 WOOD POLE) (CP-C6-XARM) (E-1-2-3) (F-1-3)	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (REC-3-C)	• Remove and dispose 35’ C4 wood pole. • Replace with 45’ S5.7 12-sided galvanized steel pole. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary framings • Remove and dispose downguy and anchor.
15835741		(ASSY-1509 (QTY=3))	(LABOR, CLOSE JUMPERS (QTY=3))	• Remove and dispose (3) fuses. • Labor to close jumpers.
15835746		(ASSY-1509 (QTY=6))	(LABOR, CLOSE JUMPERS (QTY=6))	• Remove and dispose (3) fuses. • Labor to close jumpers.

1001815367	[redacted]	(45 FT C3 WOOD POLE) (OPS-CP-C4- XARM) (ASSY-1509 (QTY=3)) (K-6) (STL-10) (E-1-2-3) (F-1-3)	(45 FT S5.7 STEEL POLE) (CP-C3-XARM) (K-6) (STL-10) (E-1-2-3) (F-1-3) (REC-3-C)	• Remove and dispose 45' C3 wood pole. • Replace with 45' S5.7 12-sided steel pole. • Install (3) Single-phase Recloser 200a. • Remove, dispose, and replace primary and secondary framings • Remove, dispose, and replace streetlight. • Remove, dispose and replace downguy and anchor. • Remove and dispose (3) fuses
NEW POLE		NONE	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (REC-3-C)	• Install a new 45' S5.7 12-Sided galvanized steel pole. • Install primary framing. • Install (3) Single-phase recloser 200a.
15837939		(ASSY-1509 (QTY=3))	(LABOR, CLOSE JUMPERS (QTY=3))	• Remove and dispose (3) fuses. • Labor to close jumpers.
1000592058		(45 FT C4 WOOD POLE) (CP-C12-XARM) (E-1-2-3(QTY=3) (F-1-3(QTY=3))	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (E-1-2-3) (F-1-3) (REC-3-C)	•Remove and dispose 45' C4 wood pole. •Replace with 45' S5.7 12-Sided galvanized steel pole. • Install (3) Single-phase recloser 200a. •Remove, dispose, and replace primary framing. •Remove, dispose and replace downguy and anchor. •Remove and replace crossarm.
1000599468		(ASSY-1509 (QTY=3))	LABOR, CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuses. •Remove and dispose (3) fuses. •Labor to close jumpers
1000600668		(ASSY-1509 (QTY=3))	(LABOR, CLOSE JUMPERS(QTY=3))	•Remove and dispose (3) fuses. • Labor to close jumpers
NEW POLE		NONE	(50 FT S8 STEEL POLE) (CP-C6-XARM) (REC-3-C)	• Install a new 50' S8 12-sided Galvanized steel pole. • Install primary framing. •Install (3) Single-phase recloser 200a.
22096419		NONE	(LABOR, cFCI(QTY=3))	•Install (3) Communicating Fault Current Indicator.
15835746		NONE	(LABOR, cFCI(QTY=3))	•Install (3) Communicating Fault Current Indicator.

Feeder 8101-02

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
NEW POLE	[redacted]	NONE	(50 FT S8 STEEL POLE) (CP-C6-XARM) (K-5) (REC-2)	• Install a new 50' S8 12-Sided Galvanized Steel Pole. • Install primary Framing. • Install new primary conductor (266 ACSR (qty=300ft). • Install triplex from source side pole, (3/0 PX (qty=250ft)). • Install (1) three-phase recloser 8101-02A. • Install and commission radio communication kit for the Three-Phase recloser.
17777689		NONE	(K-5)	• Install secondary framing
1001437949		(ASSY-1509 (QTY=3))	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuses. • Labor to close jumpers
17777613		NONE	(LABOR, cFCI(QTY=3))	• Install (3) Communicating Fault Current Indicator
20951596		NONE	(LABOR, cFCI(QTY=3))	• Install (3) Communicating Fault Current Indicator.

Feeder 8101-03

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work

20950117	[redacted]	(45 FT H4 CONCRETE POLE) (CP-C6-XARM) (E1-2-3 (QTY=2)) (F1-3 (QTY=2))	(50 FT S8 STEEL POLE) (CP-C6-XARM) (K-5) (K-6) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (REC-2) (3/0 TPX (QTY=500FT))	• Remove and dispose 45' H4 concrete pole. • Replace with 50' S8 12-sided galvanized steel pole. • Install secondary framing. • Install secondary framing at pole Fid 20950120. • Install (1) three-phase recloser 8101-03A on radial circuit. • Install and commission radio communication kit for the Three-Phase recloser. • Remove, dispose and replace primary Framing. • Use existing secondary wire to feed source side. • Remove, dispose, and replace (2) downguys. • Remove, dispose, and replace (2) anchors
1001928429		(ASSY-1509 (QTY=3)) (72" CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove, and dispose, 72" crossarm. • Remove and dispose (3) fuses. • Labor to close jumpers
20950114		(ASSY-1509 (QTY=3))	(ASSY-1509 (QTY=3)) (ASSY 1505 FIG. C) (CUTOUT BLADES(QTY=3))	• Remove and dispose (3) fuses. • Install (3) Fuse Cutout Blades. • Remove, dispose, and replace crossarms with stand-off bracket assembly. • Remove and dispose lightning arresters.

20950855	[redacted]	(65 FT WOOD POLE) (38KV STD XARM DDE) (CP-C6-XARM) (CP-B5-XARM) (K-4) (T-2)	(70 FT S8 STEEL POLE) (38KV STD VERT DDE) (CP-C6- XARM) (CP-B5-XARM) (K-4) (T-2) (REC-3-C) (E-1-2-3(QTY=2)) (F[1]1-3(QTY=2))	• Remove and dispose 65 ft wood pole. • Replace with 70’ S8 12-sided galvanized steel pole. • Install downguys. • Install anchor. • Install (3) Single-phase recloser 200a. Remove, dispose, and replace 38kv framing. • Remove, dispose and replace primary and secondary framing. •Remove, dispose, and replace transformer
20950843		(ASSY-1509 (QTY=3)) (CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	•Remove and dispose (3) fuses. • Labor to close jumpers
20950969		(65 FT C2 WOOD POLE) (CP-C1) (T-2) (K-6)	(70 FT S8 STEEL POLE) (CP-C6-XARM) (T-2) (K-6) (REC-3-C)	• Remove and dispose 65’ C2 wood pole. • Replace with 70’ S8 12-sidd steel pole. • Install (3) Single-Phase recloser 200a. • Remove, dispose, and replace primary and secondary framing • Remove, dispose, and replace single transformer.
20952434		(ASSY-1509 (QTY=3)) (42’’CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and dispose (3) fuses. • Labor to close jumpers. • Remove and dispose 42” crossarm.
20952670		ASSY-1509 (QTY=3)) (42’’CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove, dispose, and replace (3) fuses. • Labor to close jumpers. • Remove and dispose 42” crossarm.
1001430979		(ASSY-1509 (QTY=3)) (42’’ CROSSARM)	(ABS-3-XARM)	• Remove and dispose 42’’ crossarm. • Remove and dispose (3) fuses. • Labor to close jumpers. • Install Air-break switch

1001430985	[redacted]	NONE	(ABS-3-XARM)	• Install Air-break switch
20951990		(30 FT C9 WOOD POLE) (CP-C1)	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (REC-3-C)	• Remove and dispose 30' C9 wood pole • Replace with 45' S5.7 12-Sided galvanized steel pole. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary framing.
20954359		(40 FT C5 WOOD POLE) (CP-C6-XARM) (T-2) (STL-10) (K-4) (E-2-1) (ASSY[1]1509(QTY=3)) (72'' CROSSARM)	(50 FT S8 STEEL POLE) (CP-C6-XARM) (T-2) (K-4) (REC-3-C)	• Remove and dispose 40' C5 wood pole. • Replace with 50' S8 12-Sided Galvanized steel pole. • Install Downguy. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary and secondary framing. • Remove, dispose, and replace Single transformer. • Remove, dispose and replace streelight. • Remove and dispose downguy • Remove and dispose 72'' crossarm. • Remove and dispose (3) fuses.
17777613		NONE	(LABOR, cFCI(QTY=3))	• Install (3) Communicating Fault Current Indicator.
20954379		NONE	(LABOR, cFCI(QTY=3))	•install (3) Communicating Fault Current Indicator.

Feeder 8103-01

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
22661979	[redacted]	(40 FT C3 WOOD POLE) (CP-C1) (T-1) (K-7-4) (STL-10)	(50 FT S8 STEEL POLE) (CP-C6-XARM) (K-7-4) (STL-10) (REC-2)	• Remove and dispose 40' C3 wood pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Install secondary triplex from source side. • Install (1) three-phase recloser 8103-01A. • Install and commission radio communication kit for the three-phase recloser • Remove and dispose 40' C3 wood pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Remove, dispose and replace primary and secondary framing. • Remove, dispose, and replace streetlight. • Remove and relocate FID 22661968 Single
22661968		(40 FT H3 CONCRETE POLE) (CP-B1) (CP-B5-XARM) (ASSY-1509 (QTY=2))	50 FT S8 STEEL POLE) (CP-C6-XARM) (CP-C5-XARM) (K-5) (T-1) (ASSY-1509 (QTY=5)) (ASSY-1505FIGC) (CUTOUT BLADES (QTY=3)) (3/0 TPX (QTY= 200 FT))	• Remove and dispose 40' h3 concrete pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Install Triplex to load side pole. • Install (2) fuse cutout in tap-off crossarm. • Install stand- off bracket assembly. • Install (2) additional fuse cutout framing with (3) cut out blades. • Remove, dispose and replace primary and secondary framing. • Install transformer from FID 22661979. • Remove and dispose (3) fuses.

22662926	[redacted]	(40 FT C3 WOOD POLE) (CP-C6- XARM) (CP-C5- XARM (QTY=2))	(50 FT S8 STEEL POLE) (CP-C6-XARM) (REC-2-1) (40 FT C3 WOOD POLE) (CP-C6-XARM) (CP-C5-XARM (QTY=2))	• Remove and dispose 40 ft c3 wood pole. • Replace with 50' S8 12-Sided Galvanized steel pole. • Install 1kva transformer (2.4/7.62kv-120v) from source side. • Install (1) three-phase recloser 8103-01B. • Install and commission radio communication kit for Three-Phase recloser. • Remove, dispose and replace primary framings
22662916		(60 FT C2 WOOD POLE) (CP-C6-XARM) (E-1-2-3) (F-1-3) (K-6) (ASSY-1509 (QTY=3) (WOODCROSSARM)	(50 FT S8 STEEL POLE) (CP-C6-XARM) (E-1-2-3) (F-1-3) (K-6) (ASSY-1505 FIG. C) (ASSY 1509 (QTY=3)) (CUTOUT BLADES (QTY=3))	• Remove and dispose 60' C2 wood pole. • Replace with 50' S8 12-Sided Galvanized steel pole. • Install fuse cutout framing with (3) cut out blades • Remove, dispose, and replace primary and secondary framing. •Remove, dispose, and replace down guy. • Remove, dispose, and replace anchor. • Remove and dispose (3) fuses. • Remove, dispose, and replace Wood Crossarm.
NEW POLE		NONE	(50 FT S8 STEEL POLE) (CP-C6-XARM) (REC-2-1)	• Install a new 50' S8 12-Sided Galvanized steel pole. • Install primary framing. • Install 1kva transformer (2.4/7.62kv-120v) from source side. • Install (1) three-Phase recloser 8103-01C. • Install and commission the radio communication kit for three-phase recloser.

22665701	[redacted]	(ASSY-1509 (QTY=3)) (42” CROSSARM)	None	• Install (3) Fuse Cut Out Blades. • Remove and dispose (3) fuses. • Remove 42” Crossarm. • Install stand-off bracket assembly.
22663422		(40 FT H3 CONCRETE POLE) (CP-C6-XARM) (ASSY-1509 (QTY=3)) (42’’ CROSSARM) (STL-10) (K-5) (E-1-2-3(QTY=3) (F-1-3(QTY=3))	(50 FT S8 STEEL POLE) (CP-C6-XARM) (REC-3-C) (STL-10) (K-5)	• Remove and dispose 40’ h3 concrete pole. • Replace with 50’ S8 steel pole. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary and secondary framing. • Remove and dispose (3) anchors and (3) downguys. • Remove, dispose, and replace streetlights. • Remove and dispose 42” Crossarms. • Remove and dispose (3) fuses. • Labor to close jumpers.
22664680		(ASSY-1509 (QTY=3)) (42’’ CROSSARM)	(LABOR TO CLOSE JUMPERS(QTY=3))	• Remove and disposes (3) fuses • Labor to close jumpers.

22665039	[redacted]	(35 FT C4 WOOD POLE) (CP-C6-XARM) (CP_A5) (K-7 FIG. A) (ASSY-1509 (QTY=4)) (STL-10) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2)) (WOOD CROSSARM (QTY=2))	50 FT S8 STEEL POLE) (CP-C6-XARM) (CP-A5) (K-7 FIG. A) (ASSY 1509 (QTY=1)) (ASSY 1505 FIG. A) (STL-10) (REC-3-C)	• Remove and dispose 35' C4 wood pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary framing. • Remove, dispose, and replace secondary framing. • Remove and dispose (2) downguys. And (2) anchors. • Remove, dispose, and replace streetlight. • Remove, dispose, and replace tap-off fuse cutout assembly. • Remove and dispose (3) fuses. • Remove and dispose (2) wood crossarm.
22664761		(40 FT STEEL POLE) (CP-A6) (T-1) (F-1-2-3) (F-1-3) (K-5)	45 FT S5.7 STEEL POLE) (CP-A6) (REC-3-A)	• Remove and dispose 40' steel pole. • Replace with 45' S5.7 12-Sided galvanized steel pole. • Install (1) Single-phase Recloser 200a. • Remove, dispose, and replace primary framing. • Remove and dispose secondary framing. • Remove and dispose transformer. • Remove and dispose downguys and anchor
22664773		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	• Remove and dispose (1) fuse. • Labor to close jumpers.

22666023	[redacted]	(40 FT STEEL POLE) (CP-C6-XARM) (K-2) (ASSY-1509 (QTY=3)) (42''CROSSARM) (E[1]1-2-3) (F-1-3)	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (K-2) (ASSY-1509 (QTY=3)) (42'' CROSSARM) (E-1-2-3) (F-1-3)	• Remove and dispose 40 ft wood pole. • Replace with 45' S5.7 12-Sided galvanized steel pole. • Install (3) Single phase recloser 200a. • Remove, dispose, and replace primary and secondary framing. • Remove and dispose downguys and anchors • Remove and dispose 42" crossarm. • Remove and dispose (3) fuses. • Labor to close jumpers.
22666595		(45 FT H4 CONCRETE POLE) (CP-C5-XARM) (CPA5(QTY=2)) (T-1(QTY=2)) (K-6) (ASSY1509(QTY=1)) (42'' CROSSARM) (E-1-2-3) (F-1-3)	(50 FT S8 STEEL POLE) (CP-C5-XARM) (CP-A5(QTY=2)) (T-1(QTY=2)) (K-6) (REC-3-A)	• Remove and dispose 45' h4 concrete pole. • Replace with 50' S8 12-Sided galvanized steel pole. • Install (1) single-phase recloser 200a. • Remove, dispose, and replace primary and secondary framings. • Remove, dispose, and replace (2) transformers. • Remove and dispose downguys and anchor. • Remove, dispose, and replace (1) fuse. • Labor to close jumpers.
22666806		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	• Remove and dispose (1) fuse. • Labor to closer jumpers.
22667021		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	• Remove and dispose (1) fuse. • Labor to closer jumpers.
22666983		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS (QTY=1))	• Remove and dispose (1) fuse. • Labor to closer jumpers
22664762		(ASSY-1509 (QTY=1))	(LABOR TO CLOSE JUMPERS(QTY=1))	• Remove and dispose (1) fuse. • Labor to closer jumpers

1001195427	[redacted]	(45 H4 CONCRETE POLE) (CP-C6-XARM) (ASSY-1509 (QTY=3)) (42'' CROSSARM) (K-7)	(45 FT S5.7 STEEL POLE) (CP-C6-XARM) (REC-3-C) (K-7)	• Remove and dispose 45' h4 concrete pole. • Replace with 50' S8 12-sided galvanized steel pole. • Install (3) Single-phase recloser 200a. • Remove, dispose, and replace primary and secondary framing. • Remove and dispose (3) fuses. • Labor to close jumpers. • Remove and dispose 42" crossarm
20781514		(ASSY-1509 (QTY=3)) (42'' CROSSARM)	(LABOR TO CLOSE JUMPERS (QTY=3))	• Remove and dispose (3) fuses. • Labor to close jumpers. • Remove and dispose 42" crossarm.
19651710		NONE	(LABOR, cFCI(QTY=3)	• Install (3) Communicating Fault Current Indicators
22662470		NONE	(LABOR, cFCI(QTY=3)	• Install (3) Communicating Fault Current Indicators

4.2 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.

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 pole locations; there are some 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. New guy wire/ anchors are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual 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.

d. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to a 10 ft radius surrounding the surface of the pole, but not to exceed the width of the right-of-way. This is for the exclusive purpose of gaining access to the pole to conduct repairs. The vegetation removal process will be managed in accordance with federal and state regulations. The costs related to vegetation

clearance procedures are covered in the following projects:

Feeder		Project Title
8005-01	727540 FAASt [Region 2 -Arecibo Group C] (Vegetation)	
8101-03		
8103-01		
8101-02	728827 (Vegetation)	FAASt [Region 2 -Arecibo Group A] High Density

e. All existing overhead conductors, poles, assemblies, and attached 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.

f. All work for this program will be performed within the current electrical right-of[1]way.

2) Debris will be separated and taken to an authorized 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 Utuado Regional Warehouse, whose address is Carr. #10 KM 56.5, Bo. Salto Arriba, Utuado. Coordinates are [redacted]. 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 includes 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.

7) **Specific List of Permits Required**:

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

b. Excavation and Demolition Notification in t h e Department of Transportation and Public Works Agency - (DTOP)

c. LUMA will provide proof of all permits.

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- LUMA Project Cost Estimate

COST ESTIMATE

Cost Element	428	406	PROJECT TOTAL
PLANNING	**$209,929.11**	**$-**	**$209,929.11**
MANAGEMENT	**$129,718.08**	**$-**	**$129,718.08**
Distribution Automation Group 32	**$2,532,905.08**	**$-**	**$2,532,905.08**
GENERAL CONDITIONS	**$130,194.33**	**$-**	**$130,194.33**
COST TOTALS	**$3,002,746.60**	**$-**	**$3,002,746.60**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		**$-**
	DE-OBLIGATION TO FAASt IF APPLICABLE		**$-**
FAASt ALLOCATIONS	FAAST PROHECT # 757697- 428		**$1,996,678.58**
	FAAST PROJECT 757697- 406HM		**$-**
	FAAST PROJECT # TOTAL:		**$1,996,678.58**
	FAASt A&E # 335168 - 428		**$339,647.19**
	FAASt A&E # 335168 - 406 HM		**$-**
	FAASt A&E # 335168 TOTAL		**$339,647.19**
	FAASt E&M #673691 - 428		**$666,420.83**
	FAASt E&M #673691 - 406 HM		**$-**
	FAASt E&M #673691 TOTAL		**$666,420.83**

Project Cost Summary, 428 Version 0:

Work to be Completed (WTBC): $ 3,002,746.60

A&E Deduction (Global A&E FAASt 335168): -$339,647.19

E&M Deduction (Global E&M FAASt 673691): -$666,420.83

Project Total: $1,996,678.58

Project Cost Estimate Notes:

1. Refer to detailed SOW provided in document labeled: “757697-DR4339PR- DSOW Group 32-Rev. 3. pdf.”

2. Refer to detailed Cost Estimate provided in document labeled: “757697-DR4339PR-APPENDIX B - LUMA Project Cost Estimate Rev. 2.xlx.xlsx”

3. A&E costs included in this project will be reduced from this project and obligated under the FAASt Project #335168, A&E, as shown in in the table above. The A&E project was obligated to track and account for costs associated with individual FAASt projects.

4. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project Group 32 Automation FAASt 757697.

5. This project is part of Donor FAASt 136271 – MEPA078 Puerto Rico Electrical Power Authority (PREPA) Island Wide FAASt Project.697.

406 HMP Scope

406 Hazard Mitigation measures were not requested by the sub-applicant for this project in Version 0. However, there may be mitigation opportunities that will apply to Version 1 of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
9001	1	Lump Sum	$3,002,746.60	Uncompleted
3510	1	Lump Sum	($339,647.19)	Uncompleted
9001	1	Lump Sum	($666,420.83)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$1,996,678.58
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$1,996,678.58
Federal Share (90.00%)	$1,797,010.73
Non-Federal Share (10.00%)	$199,667.85

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

7/07/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

Jorge Parrilla, PA Insurance Specialist

CRC Atlantic, Guaynabo, PR

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [Automation Program Group 32] (TL / Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Automation Program Group 32] (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.
- a. The Subrecipient and/or Subrecipient s contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022. b. Pursuant to Stipulation III.B of the PSPA, if, in the course of implementing this Individual Undertaking(s), previously unidentified structures, sites, buildings, objects, districts, or archaeological deposits, that may be eligible for listing in the National Register, or human remains are uncovered, or if it appears that an Individual Undertaking has affected or will affect a previously identified historic property in an unanticipated manner, the contractor must notify Subrecipient who will immediately notify the Recipient. Work must stop in the vicinity of the discovery and measures must be taken to protect the discovery and avoid additional harm. c. 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. 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 Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and execute orders prior to a subrecipient or their contractor commencing 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 closeout.
- ESA 1: The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- ESA 2: Puerto Rican boa (PR boa; Chilabothrus inornatus) and Virgin Islands Boa (VI boa; Chilabothrus granti). For feeders 8005-01, 8101-02, 8101-03 and 8103-01. 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.

- ESA 3: 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 Services 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
- ESA 4: The below conservation measures apply to the following species: Puerto Rican parrot (Amazona vittata), and Puerto Rican broad-winged hawk (Buteo platypterus brunnescens), for feeders 8005-01, 8101-02, 8101-03 and 8103-01. 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 plain pigeon: April-September. - Puerto Rican broad-winged hawk: December-June. - Puerto Rican sharp-shinned hawk: December-June. - Puerto Rican nightjar: February-August. - Elfin-woods warbler: March-June. - Yellow-shouldered blackbird: February-November. 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
- ESA 5: 34. The Puerto Rican harlequin butterfly (Atlantea tulita) for feeders 8005-01, 8101-02, 8101-03 and 8103-01: 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.

- ESA 6: 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: - Clearly mark the host plant with flagging tape. - Establish a 10-meter (32-foot) buffer zone around the bush for its protection. - 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. - 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: 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
- RCRA 1: The Applicant shall handle, manage, and dispose of all types of hazardous waste in accordance with requirements of local, state, and federal laws, regulations, and ordinances. In addition, the Applicant shall ensure that all debris is separated and disposed of in a manner consistent with the PR DNER guidelines at a permitted site or landfill. The contractor/applicant will be responsible for the proper disposition of construction debris in authorized landfills providing the name, location, coordinates and permits of the facility to the corresponding authorities. 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.
- 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program Group 32] (TL / Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L.

Reviewed On 09/12/2025 6:31 PM PDT

Review Comments

Reviewed, found eligible and reasonable. - CLG 09.12

Recipient Review

Reviewed By Mulero, Noel

Reviewed On 09/18/2025 9:49 PM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned

Reviewed On Unsigned

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 $1,996,678.58 for subaward number 108038 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.

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	9/25/2025	$1,797,010.73	90%	Accepted	4339DRPRP01080381

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	757698 **P/W #** 108039	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Automation Program Group 33] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1399059; FAASt [Automation Program Group 33: Bayamon Feeders:1711-01, 1711-04, 1713-03, 9801-03] (Distribution)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** Automation Program Group 33
- **Facility Description:** Bayamon Feeders: 1710-01, 1710-03, 1710-05,1711-01, 1711-04, 1713-03, 1714-02
- **Approx. Year Built:** 1980
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

Final Scope

1399059

FAASt [Automation Program Group 33: Bayamon Feeders:1711-01, 1711-04, 1713-03, 9801-03] (Distribution)

Introduction

This document is to submit for approval a Detailed Scope of Work ("DSOW") to COR3 and FEMA for the Transmission and Distributio 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 DSOW 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 t Federal Funding Letter issued by PREPA and P3A. These collectively provide the necessary consent for LUMA Energy, as agent of PREPA, t 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. Although the intent is to deploy automation equipment throughout PREPA's transmission and distribution ("T&D") system, the

Program is broken into multiple projects being implemented across the island on both transmission and distribution systems. The multiple projects within this Program are designed to fortify the electrical system's resilience, safeguard its infrastructure, and enhance service reliability. The individual projects are interconnected and enhance each other, but each can also be implemented independent of the other with each conferring benefits independently. Automation is necessary to restore the T&D 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 757698 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, their communication kits, and the 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 damage to the grid during future hurricanes. This project is necessary for the EMS to maintain the continuity of the distribution power grid on Feeders 1711-01, 1711-04, 1713-03, and 9801-03.

Key components of this project are (1) pole replacement, (2) the three-phase reclosers and single-phase reclosers, and (3) the 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 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 not, 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. 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, ensuring 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.

Three-Phase Recloser: 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. The recloser's wireless communication capability will provide connectivity to LUMA's EMS so the system operator knows their status and can remotely control them. Deployment of the wireless communication devices includes configuration, testing, and commissioning of the wireless communication device, all networking devices, data acquisition, and control systems that form the connectivity path of the recloser to the EMS.

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 damage from future disasters. In this project, LUMA will install ten three-phase reclosers.

Single-Phase Reclosers: A single-phase recloser is a single protection device with one switch that can open to interrupt fault currents and automatically reclose to restore power. 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 single-phase or two-phase distribution feeders and distribution lines branching from the feeder. Single-phase reclosers will also be used on feeders with three phases if fault currents are low at the location. In this project, LUMA will install a total of seven single-phase reclosers.

(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. cFCIs operate independent of the feeder reclosers. cFCIs 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 build a predictive failure model.

Data sent to the EMS aids the grid operator in making 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. Installation of the three-phase reclosers and the communicating fault current indicators (communications ready) is critical for the EMS to efficiently mitigate the loss of service and potential damages in future

disasters.

This project's scope does not contain fiber optics or communication capability that is included in other projects. This project will use cellular technology for communications with the operations center. LUMA is using cellular communications service only for reclosers and their associated hardware. The lack of fiber optics as a method of transmitting information does not prevent or limit the monitoring capabilities of the reclosers and cFCIs or the automation capabilities of the reclosers on this feeder, nor does it prohibit the incorporation of fiber optics at a later date.

FACILITIES

Facilities Description

The facilities listed below are part of PREPA's electric distribution system. All feeders originate from a substation (GPS Start) and serve customers along the route to various locations (GPS End). The coordinates shown below represent the mainline backbone of the feeders at issue in this project.

To avoid duplication of work across projects, LUMA reviewed the FIDs identified for work across distribution programs. The analysis did not identify any poles on these feeders, where LUMA is installing Distribution Automation (DA) devices, that require disaster-related replacement. Accordingly, LUMA has not initiated any rebuild projects for poles on these feeders under the Distribution Rebuild Program (also referred to as the D-Line Program). LUMA also confirmed that none of the poles on these feeders, which will be replaced under the Pole and Conductor Repair Program (also referred to as the D-Pole Program), will be replaced again under the DA Program

To further address any concerns regarding the duplication of work across other proposed or planned Hurricane Maria distribution projects, LUMA provides Appendix D which contains a list of all FIDs on the feeder upon which FEMA-eligible work will be performed and the associated proposed scope of work under each distribution program. Please refer to the ***APPENDIX D - LUMA Active Projects*** to show no duplication of scope elements.

Facilities List

Name	Feeder Number	GPS Start	GPS End
Bayamon	1711-01	[redacted]	
Bayamon	1711-04		
Bayamon	1713-03		
Bayamon	9801-03		

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

PROJECT SCOPE OF WORK

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 1711-01

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
NEW POLE	[redacted]	NONE	70' S8 GALVANIZED STEEL POLE) (38KV 70S8 SINGLE CIRCUIT DEADEND VERTICAL ASSY ANGLE 0-10) (CP-C6-XARM) (REC-2-1)	• Install new galvanized 70' S8 12-sided galvanized steel pole in midspan location. • Install (1) Three-Phase Recloser 1711-01A. • Install and Commission radio communication kit for Three-Phase Recloser. • Install (2) 1 kva transformer (7.62/13.20 kv 120/240v) for source and load side.
NEW POLE		NONE	50' S8 GALVANIZED STEEL POLE) (CP-C6 XARM) (ABS-3-XARM) (E1-2-3) (F-1-3)	• Install a new 50' S8 12-Sided galvanized steel pole in mid span. • Install Air-Break switch. • Install (1) Anchor and (1) down guy.
11318114		NONE	cFCI(QTY=3) LABOR	• Install (3) Communicating Fault Current Indicator
6595706		NONE	cFCI(QTY=3) LABOR	• Install (3) Communicating Fault Current Indicator
6595635		NONE	cFCI(QTY=3) LABOR	• Install (3) Communicating Fault Current Indicator

Feeder 1711-04

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
NEW POLE	[redacted]	NONE	(70'-S8 GALVANIZED STEEL POLE) (OPS-REC-2-1 VER. 6) (CP-C6-XARM) (38KV 70S8 STD SC DEADEND VERTICAL ASSY 0-10)	• Install new 70' S8 12-Sided galvanized pole in new location mid span. • Install (1) Three-Phase Recloser 1711-04A. • Install and commission radio communication kit for three-phase recloser. • Install (2) 1kva (7.62/13.20kv - 120/240v) transformers for source side and load side. • Install 38kv standards in new pole.

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
6344120	[redacted]	(FUSES REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) Fuses.
7957688		(ABS-3-XARM) (FCI (QTY=3))	(LABOR & REPAIR)	• Remove and dispose air-break switch. • Remove (3) fault current indicators.
13061018		(50 FT H6 CONCRETE POLE) (CP-C6-XARM)	(50 FT S8 STEEL POLE) (CP-C6-XARM) (REC-2-1)	• Remove and dispose 50 ft h6 concrete Pole. • Replace with 50' S8 12-sided Galvanized steel pole. • Remove, dispose and replace primary framing. • Install (2) 1 kva Control transformers (7.62kv - 120v) to feed Recloser from source side and load side. • Install (1) three-Phase recloser **1711-04B** in Loop restoration circuit. • Install and commission radio communication kit for three-phase recloser.
NEW POLE		NONE	(50'-S8 GALVANIZED STEEL POLE) (REC-4-C) (CP-C6-XARM)	• Install new galvanized steel pole 50' S8 12-Sided Galvanized steel pole in new location mid span. • Install (3) Mounted Single-Phase Recloser.
Segment FID **19774609**		NONE	LABOR,cFCI QTY=3	• Install (3) Communicating Fault Current Indicators.

Feeder 1713-03

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
6589664	[redacted]	(45FT H6 CONCRETE POLE) (CP-C1) (K-6) (STL-10)	(50FT S8 STEEL POLE) (REC-2-1) (K-6) (CONTROL XFRM, 7.62KV/13.2KV, 120V,1KVA) (E-1-2-3) (F-1-3) (STL-10)	• Remove and dispose 45' Concrete pole. • Replace with 50' S8 12-sided galvanized steel pole. • Remove, dispose and replace primary and seconda framing. • Remove, dispose and replace streetlights. • Install (1) three-phase recloser. • Install and commission radio communication kit for th phase recloser. • Adjacent secondary conductor from Transformer w 23354844 will feed the Recloser load side. • Install 1kva control transformer (7.62/13.2kv, 120v) source side. • Install new guy wire and anchor.
1002078084	[redacted]	(CP-C1)	(CP-C6-XARM) (K-7-A) (REC-2 VER. 6) (STL-10) (K-5(QTY=2)) (E-1-2-3(QTY=1)) (F-1-3(QTY=1))	• Existing Pole. • Labor of installing existing streetlight. • Labor of installing existing secondary conductor for side. • Install (1) Three-Phase Recloser. • Install and commission radio communication kit for th phase recloser. • Install secondary conductor 1/0 al tpx - 115 ft for lo • Install (1) downguy and (1) anchor.

1000787695	[redacted]	(40'-H4 CONCRETE POLE) (AC-C1 XARM) (ASSY 1509 (QTY=2))	(50'-S8 GALVANIZED STEEL POLE) (CP-C6-XARM) (K-6) (K-7-A) (REC-2 VERS 6) (E-1-2-3 (QTY=1)) (F-1-3 (QTY=1))	• Remove, dispose and replace primary framings. • Remove and dispose (2) fuses. • Use existing secondary conductor for source side. • Remove and dispose 40' H4 Concrete pole. • Replace pole with 50' S8 12-sided galvanized steel • Install (1) Three-Phase Recloser 1713-03 on a radia configuration. • Install and commission radio communication kit for th phase recloser. • Install (1) down guy and (1) anchor.
4948234		(35'-CLASS 3 WOOD POLE) (CP-C6 XARM) (K-6 (QTY 2)) (E-1-2-3 QTY=1)) (F-1-3 (QTY=1)) (STL-10)	(50'-S8 GALVANIZED STEEL POLE) (CP-C6-XARM) (K-6 (QTY 2)) (REC-2-1 VERS 6) (STL-10)	• Remove, dispose, and replace primary framings. • Use existing secondary conductor for load side. • Remove and dispose (1) anchor and (1) downguy • Remove and dispose 35' Class 3 Wood pole, • Replace pole with 50' S8 12-sided galvanized steel • Install (1) three-phase recloser 1713- 03. • Install and commission radio communication kit for T phase recloser. • Install (1) 1 kva transformer (7.62/13.2 kv -120/240v source side.
NEW POLE		NONE	(50'-S8 GALVANIZED STEEL POLE) (CP-C6-XARM) (REC-2 VER 6) (K-6)	• Install new 50' S8 12-Sided galvanized steel pole in location mid span*. • Install primary framing. • Install (1) Three-Phase Recloser 1713-03 on a radia configuration. • Install and commission radio communication kit for T phase recloser. • Use existing secondary conductor for source side.
21650576		(40'-H4 CONCRETE POLE) (AC-C1 XARM) (CP-C5 XARM) (E-1-2-3 (QTY=1)) (F-1-3 (QTY=1)) (K-2)	(55'-S8.5 GALVANIZED STEEL POLE) (CP-C5-XARM) (CP-C1) (T-2) (K-5) (K-7-B) (E-1-2-3 (QTY 2)) (F-4-2 (QTY=1))	• Adjacent Pole: Remove and dispose 40' H4 Concret • Replace pole with 55' S8.5 12-Sided galvanized ste • Install a new additional (1) down guy. • Install a new additional (1) anchor. • Install primary cond 1/0 cu - 66ft. • Remove, dispose, and replace primary framings. • Install existing 50kva (7.62/13.2 kv-120/240v) transf • Remove, dispose and Replace (1) down guy. • Remove, dispose and Replace (1) anchor.
4948238		(35'-CLASS 4 WOOD POLE) (AC-C2) (T-1) (K-7-B)	(50'-S8 GALVANIZED STEEL POLE) (CP-C2) (T-1) (K-7-B) (K-5)	• Adjacent Pole: Remove and dispose 35' Class 4 wo • Replace pole with 50' S8 12-Sided galvanized steel. • Remove, dispose, and replace primary framings. • Install existing transformer 50kva (7.62/13.2 kv-120/ transformer to new pole.
4948232		(35'-CLASS 2 WOOD POLE) (AC-C1) (K-7 A) (STL-10)	(45' S5.7 GALVANIZED STEEL POLE) (CP-C1) (K-7-A) (STL-10)	• Adjacent Pole: Remove and dispose 35' Class 2 Wo • Replace pole with 45' S5.7 12-Sided galvanized ste • Remove, dispose, and replace primary framings. • Remove, dispose, and replace streetlights.

4948623	[redacted]	(40'-H3 CONCRETE POLE) (AC-C1 XARM) (CP-A5) (T-1) (K-6) (URD-4)	(50'-S8 GALVANIZED STEEL POLE) (45'-5.7 GALVANIZED STEEL POLE) (CP-A5) (CP-C1) (T-1) (K-6) (URD-4) (E-2-1)	• Adjacent Pole: Remove and dispose 40' H3 concrete • Replace pole with 50' S8 12-Sided galvanized steel to three-phase recloser 1713-03 installation. • Install a new stubpole 45'-S5.7 12-Sided galvanized pole. • Remove, dispose, and replace framings. • Install existing 37.5kva (7.62/13.2 kv-120/240v) tran • Remove, dispose, and replace streetlights.
4948624		(40'-H3 CONCRETE POLE) (AC-C8) (K-6) (URD-2) (STL-10 (QTY=2))	(45'-S5.7 GALVANIZED STEEL POLE) (CP-C1) (K-6) (URD-2) (STL-10 (QTY=2))	• Adjacent Pole: Remove and dispose 40' H3 concrete • Replace pole with 45' S5.7 12-Sided galvanized ste • Remove, dispose, and replace framings. • Remove, dispose, and replace streetlights.
4948224		(35' CLASS 4 WOOD POLE) (AC-C1) (STL-10) (K-5) (K-7-A)) (CP-B5 XARM)	(50'-S8 GALVANIZED STEEL POLE) (CP-C1) (T-2) (K-7-B) (K-4) (STL-10)	• Adjacent Pole: Remove and dispose 35' Class 4 Wo • Replace pole with 50' S8 12-Sided galvanized steel • Install secondary conductor 1/0 al tpx 65ft. • Remove, dispose, and replace framings. • Labor to install existing 50 kva (7.62/13.20 kv - 120/ transformer from service pole fid: 4948151. • Remove, dispose, and replace streetlight.
Segment FID 1001397537		NONE	cFCI Qty=3 LABOR	• Install (3) Communicating Fault Current Indicators.

Feeder 9801-03

POLE FID	Coordinates Lat, Long	Existing (Remove)	428 Replacement	Scope of work
13650737	[redacted]	((ASSY 1506 B) (K-7 B) (E-1-2-3 (QTY2)) (F-1-3 (QTY 2)) (STL-10) (T-2)	(ASSY 1506 B) (REC-2-1VER, 6) (K-7 B) (E-1-2-3(QTY3)) (F-1-3 (QTY 3)) (STL-10)	• Use existing pole. • Remove, dispose, and replace framings. • Remove, dispose and replace (1) down guy and (1) an • Labor to transfer existing 25 kva (4.8/8.32 kv - 120/240 Transformer from pole fid: 13650737 to Pole fid: 136507 • Remove, dispose, and replace streetlight. • Install (1) Three-Phase Recloser 9801-03A. • Install and commission radio communication kit for the t phase recloser. • Use existing secondary conductor for load side. • Install 1 kva (4.8/8.32 kv - 120/240 v) for source side. • Install new additional (1) Down guy and (1) anchor.
1001137099		(50'-H4 CONCRETE POLE) (CP-C1) (K-7A) (E-1-2-3) (F-1-3) (50 FT 1/0 AL TRIPLEX SECONDARY CONDUCTOR)	(50'-S8 GALVANIZED STEEL POLE) (S-6) (REC-2-2) (E-1-2-3) (F-1-3)	• Remove and dispose 50' H4 concrete pole. • Replace pole with 50' S8 12-sided Galvanized steel p • Install a spacer double dead-end. • Install (1) Three-Phase Recloser 9801-03B. • Install and commission radio communication kit for the phase recloser. • Install (2) 1 kva (4.8/8.32 kv -120/240 v) transformers source side and load side. • Remove, dispose, and replace framings. • Remove, dispose, and replace (1) down guy. • Remove, dispose and replace (1) anchor. • Remove out of service secondary conductor.

13650739	[redacted]	(OPS CP C4 XARM) (CP-A5) (ASSY1509 QTY=1) (K-1) (E-1-2-3) (F-1-3) (STL-10)	(OPS CP-C4 XARM) (CPA5) (ASSY 1509TY=1) (T-1)(K-1) (E-1-2-3 (QTY2)) (F-4-2) (STL-10)	• Existing pole: • Remove, dispose, and replace (2) down guys and (1) • Install existing 25 kva (4.8/8.32 • Kv - 120/240 v) transformer from pole Fid: 13750737. • Remove, dispose, and replace streetlight. • Remove and dispose (1) fuse
7265423		(FUSE REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) fuses
13651343		(FUSE REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) fuses.
1000373351		(FUSE REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) fuses.
13652808		(FUSE REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) fuses
1001137098		SWITCH REMOVAL (QTY=3))	(LABOR & REPAIR)	• Remove and dispose (3) switch.
10150470		(40'-CLASS 5 WOOD POLE) (CP-A1) (K-7 B) (STL-10) (E-1-2-3 (QTY=2)) (F-1-3 (QTY=2))	(45'-S5.7 GALVANIZED STEEL POLE) (CP-A6) (REC-3-A) (K-7 B) (STL-10) (E-1-2-3) (F-1-3)	• Remove and dispose 40' Class 5 wood pole. • Replace pole with 45' S5.7 12-sided Galvanized steel • Install (1) cutout mounted single-Phase Recloser (CMI • Remove, dispose, and replace framings. • Remove, dispose, and replace streetlight. • Remove and dispose (2) down guy. replace only one. • Remove and dispose (2) anchors. replace only one.
10150488		(50' CLASS 2 WOOD POLE) (OPS-CP-C4 XARM) (K-7 B) (STL-10) (E-1-2-3) (F-1-3) (ASSY 1509 (QTY=3))	(45'-S5.7 GALVANIZED STEEL POLE) (CP-C4 VERT) (REC-3-C-VERT) (K-7 B) (STL-10) (E-1-2-3) (F-1-3)	• Remove and dispose 50' Class 2 wood pole. • Replace pole with 45' S5.7 12-Sided Galvanized steel • Install (3) cutout mounted single-phase recloser (CMI • Remove, dispose, and replace framings. • Remove, dispose, and replace streetlight. • Remove, dispose, and replace (1) down guy and (1) • Remove and dispose (3) fuses.
10150479		(40' CLASS 5 WOOD POLE) (CP-C3 XARM) (K-7 B) (E-1-2-3) (F-1-3) (T-1) (25 KVA (4.8/8.32 kV - 120/240 V)) (93 FT 1/0 AL OPEN WIRE SECONDARY CONDUCTOR)	(50'-S8.5 GALVANIZED STEEL POLE) (CP-C3XARM) (K-7 B) (E-1-2-3) (F-1-3) (T-1) (25 KVA (4.8/8.32 kV - 120/240V)) (93 FT 1/0 AL TRIPLEX SECONDARY CONDUCTOR)	• Adjacent Pole: Adjacent Pole: Remove and dispose 4 5 wood pole. • Replace pole with 50' S8.5 12-Sided galvanized steel • Remove, dispose, and replace framings. • Remove, dispose, and replace 25kva (4.8/8.32 kV-12 transformer. • Remove, dispose and replace (1) down guy and (1) a • Remove, dispose and replace 93 ft of secondary ope conductor with triplex conductor.

10347922	[redacted]	(FUSE REMOVAL (QTY=1))	(LABOR & REPAIR)	• Remove and dispose (1) fuse.
10150482		(FUSE REMOVAL (QTY=1))	(LABOR & REPAIR)	• Remove and dispose (1) fuse.
SEGMENT FID 15920218		NONE	cFCI= 3 LABOR	• Install (3) Communicating Fault Current Indicators.
SEGMENT FID 15905910		NONE	cFCI= 3 LABOR	• Install (3) Communicating Fault Current Indicators.

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

Proposed 406 Hazard Mitigation Scope of Work

406 Hazard Mitigation Proposal
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.

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 pole locations. 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 are to be installed in compliance with the LUMA Overhead Electrical Distribution System Manual 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.

e. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to a 10 ft radius surrounding the surface of the pole, but not to exceed the width of the right-of-way. This is for the exclusive purpose of gaining access to the pole to conduct repairs. The vegetation removal process will be managed in accordance with federal and state regulations. The costs related to vegetation clearance procedures are covered in the following projects:

Feeder	Project Title
1713-03	727558 FAASt Region 3 -Bayamon Group C (Vegetation)
1711-01 **1711-04** **9801-03**	727572 FAASt [Region 3 -Bayamon Group A] High Density (Vegetation)

f. All existing overhead conductors, poles, assemblies, and attached 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.

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 Warehouse. The warehouse assigned is Sabana Llana District Warehouse, whose address is, #654 Calle De Diego Final, Rio Piedras, PR. Coordinates are [redacted] 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 includes *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 trailer*.

7) Specific List of Permits Required:

1. Department of Transportation and Public Works - ("DTOP") Endorsements & Municipality Notifications
2. Excavation and Demolition Notification in the Department of Transportation and Public Works Agency - ("DTOP").

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 known risks. For more details refer to **APPENDIX B- LUMA Project Cost Estimate.**

COST ESTIMATE			
Cost Element	**428**	**406**	**PROJECT TOTAL**
PLANNING	**$191,096.94**	**$-**	**$191,096.94**
MANAGEMENT	**$120,485.70**	**$-**	**$120,485.70**
Distribution Automation Group 33	**$2,360,365.00**	**$-**	**$2,360,365.00**
GENERAL CONDITIONS	**$122,680.65**	**$-**	**$122,680.65**
COST TOTALS	**$2,794,628.29**	**$-**	**$2,794,628.29**

DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**	**$-**
	DE-OBLIGATION TO FAASt IF APPLICABLE	**$-**
FAASt ALLOCATIONS	FAAST PROJECT # 757698 - 428	**$1,888,928.21**
	FAAST PROJECT # 757698 –406 HM	**$-**
	FAAST PROJECT # TOTAL:	**$1,888,928.21**
	FAASt A&E # 335168 - 428	**$311,582.64**
	FAASt A&E # 335168 - 406 HM	**$-**
	FAASt A&E # 335168 TOTAL	**$311,582.64**
	FAASt E&M #673691 - 428	**$594,117.44**
	FAASt E&M #673691 - 406 HM	**$-**
	FAASt E&M #673691 TOTAL	**$594,117.44**

Project Cost Summary, 428 Version 0:

Work to be Completed (WTBC): $ **2,794,628.29**

A&E Deduction (Global A&E FAASt 335168): -$311,582.64

E&M Deduction (Global E&M FAASt 673691): -$594,117.44

Project Total: $1,888,928.21

Project Cost Estimate Notes:

1. Refer to detailed SOW provided in document labeled: "757698-DR4339PR- DSOW Group 33 - Revision 02-. pdf."

2. Refer to detailed Cost Estimate provided in document labeled: "757698-DR4339PR-APPENDIX B - LUMA Project Cost Estimate Revisi 002).xlsx"

3. A&E costs included in this project will be reduced from this project and obligated under the FAASt Project #335168, A&E, as shown in in the table above. The A&E project was obligated to track and account for costs associated with individual FAASt projects.

4. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project Group 36 Automation FAASt 800286.

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

6. **ATTACHMENTS**

757698-DR4339PR-APPENDIX A - Initial Scope of Work

757698-DR4339PR-APPENDIX B - LUMA Project Cost Estimate

757698-DR4339PR-APPENDIX C - Project Considerations

406 HMP Scope

Mitigation opportunities will be applied in a future version of the Permanent Work Project. In accordance with the Distribution Automation resolution document share with the applicant. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
9001	1	Lump Sum	$2,794,628.29	Uncompleted
3510	1	Lump Sum	($311,582.64)	Uncompleted
9001	1	Lump Sum	($594,117.44)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$1,888,928.21
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$1,888,928.21
Federal Share (90.00%)	$1,700,035.39
Non-Federal Share (10.00%)	$188,892.82

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.

Insurance

Additional Information

5/27/2025

Does the Applicant have a Commercial Policy: Yes.

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

Property insurance coverage for the electrical distribution facilities represented on this project are not insured or insurable. No insurance relief is

anticipated. No Obtain and Maintain requirement will be made.

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

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

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

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

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 33] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Automation Program Group 33] (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.
- The Subrecipient and/or Subrecipient s contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022.
- 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 2 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 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 Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and execute orders prior to a subrecipient or their contractor commencing 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 closeout.

- Endangered Species Act (ESA) Conditions for the Puerto Rican Boa (Chilabothrus inornatus) for feeders (1711-01, 1711-04, 1713-03 and 9801-03): 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 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 Services 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
- - 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.

- Executive Order 11988 - Floodplain Conditions for Feeders 1711-01, 1711-04, 1713-03 and 9801-03: Applicant must obtain any required permits from the Puerto Rico Permits Management Office (OGPe) prior to initiating work and comply with any conditions of the permit established by the Planning Board (JP) for constructions in floodplains. All coordination (emails, letters, documented phone calls) pertaining to these activities and compliance must be provided and maintained in the Applicants permanent files.
- Executive Order 11990 - Wetlands Conditions for Feeder 1711-04: 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 must provide documentation at close-out that proves completion of required Conservation Measures.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Automation Program Group 33] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:32 PM PDT

Review Comments

Reviewed, found eligible and reasonable -CLG 09.12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/18/2025 5:46 PM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

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 $1,888,928.21 for subaward number 108039 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.

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	9/25/2025	$1,700,035.39	90%	Accepted	4339DRPRP01080391

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	812569 **P/W #** 108102	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Feeder Rebuild 3502-02] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1516812; FAASt [Distribution Feeder Rebuild 3502-02]

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** FAASt [Distribution Feeder Rebuild 3502-02]
- **Facility Description:** The specific facilities included in this project are: poles and structures (including their foundations), framing and insulators, load break switches (manual and automated), capacitor banks, voltage regulators, transformers (including lightning arresters and fuse cut-outs), conductors, guy wires, anchoring, grounding assemblies, underground cable, underground cable systems, fault interrupting equipment (fuses, reclosers, and sectionalizers), and any other associated components.
- **Approx. Year Built:** 1967
- **Start GPS Latitude/Longitude:** [redacted]
- **End GPS Latitude/Longitude:** [redacted]

Final Scope

1516812 **FAASt [Distribution Feeder Rebuild 3502-02]**

INTRODUCTION:	

This document contains the Detailed Scope of Work (DSOW) for project 812569 Distribution Feeder Rebuild # 3502-02. The document provides a detailed description of the project, including scope, schedule, cost estimates, and project considerations. LUMA Energy is seeking approval from COR3 and FEMA for project funding to repair, restore, or replace the eligible facilities under DR-4339-PR Public Assistance.

LUMA submits this Detailed SOW pursuant to the Transmission and Distribution Operations & Maintenance 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 included on the Applicant Event Profile in Grants Portal, 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 (T&D) system submitted to FEMA execute federally-funded projects and seek reimbursement from FEMA as it relates to the transmission and distribution (T&D) system.

FACILITIES:

Facilities Description

Feeder 3502-02 is located in Aibonito, Puerto Rico. It has 2.73 circuit miles of 3-phase overhead distribution lines, which starts at Aibonito PDS Substation ([redacted]). The feeder is subdivided into the following categories: Central Line, Three Phase Laterals, and One or Two-Phase Laterals. The feeder originates from the substation and serves customers along the route GPS Coordinates begin [redacted], end [redacted]. For more details, please refer to **Appendix F — Feeder Location Maps**. The proposed work to rebuild this feeder is a subset of the scope of work in the Caguas Region Feeders Project in the PREPA 10-Year Infrastructure Plan.

Figure 1 Feeder Location Map

Facilities List

Electrical Feeder 3502-02 starts at Aibonito PDS Transmission Center and serves 3,565 customers along a route to various locations. The table below identifies the GPS coordinates for the start and endpoint of the segment feeder line. The project consists of the removal and replacement of 104 poles, the installation of 13 new poles that will be located within the easement, and work on 10 existing poles to comply with codes and standard. Location for each pole is provided in **Appendix J — 3502-02 Pole Schedule.**

Distribution

Feeder Number	Feeder Name	Customer s Counts	GPS Start	GPS End	Phase	Voltage Level (kV)	Date of Constructio
3502-02	Aibonito PDS	3565	[redacted]	[redacted]	3Phase	8.32KV	1995

Note: Please refer to **Appendix J — 3502-02 Pole Schedule** for a list of all GPS locations that this project will impact.

The table below lists six (6) poles that are along this feeder line were replaced as part of the D-Pole Conductor Repair program and therefore are not part of the scope of this project. These six Pole FIDs were removed and replaced as part of D-Pole FAASt Project 790427, T-Pole FAASt Project 750168, D-Pole FAASt Project 679033, and D-Pole FAASt Project 674092. This project 812569 DSOW does not include scope or costs associated with that previously funded pole replacement work. For details on the work on these FIDs that is included this project 812569 scope of work, please refer to Section 4.1 below.

Pole FID	Program	FASSt	Latitude	Longitude	D-Pole or T-Pole Scope of Work Not Included in thi DSOW
10905486	T-Pole and Conductor Repair	750168	[redacted]	[redacted]	Replaced under DPOLE program with 70 S8, Cross arms, insulators and all associated hardware.

10913090	D-Pole and Conductor Repair	790427	[redacted]		Replaced under DPOLE program with 50 S8, Cross arms, insulators and all associated hardware.
10913452	D-Pole and Conductor Repair	790427			Replaced under DPOLE program with 50 S8, Cross arms, insulators and all associated hardware
10913722	D-Pole and Conductor Repair	790427			Replaced under DPOLE program with 50 S8, Cross arms, insulators and all associated hardware
10915526	D-Pole and Conductor Repair	679033			Replaced under DPOLE program with 70 S8, Cross arms, insulators and all associated hardware.

10913063	D-Pole and Conductor Repair	674092	[redacted]	[redacted]	Replace pole with 50 S8, Cross arms, insulators and all associated hardware

Project Scope of Work:

This section contains the proposed SOW for the project, including work to repair PREPA's disaster- damaged facilities for which LUMA will request funding under PREPA's § 428 fixed cost subaward (this work and funding is referred to herein as § 428 work or § 428 funding) For specific details of the proposed reconstruction of the feeder please refer to **Appendix C- LUMA Proposed Design.**

As noted above, § 428 work includes efforts to repair PREPA's facilities damaged by Hurricanes Irma and Maria, including (pursuant to the Bipartisan Budget Act of 2018) the repair or restoration of non-damaged components required to fully effectuate a disaster-related repair. Work funded under § 428 must be completed consistent with required codes and standards. Further, the Bipartisan Budget Act requires work on non-damaged elements to restore the function of the facility or system to industry standards.

Proposed 428 Public Assistance Scope of Work

This project includes the removal and replacement of one hundred four (104) existing poles, the installation of thirteen (13) new poles, and work on ten (10) existing poles to comply with codes and standards. Six (6) of said 10 existing poles were removed and replaced under other programs. The tables below summarize the structure count of the work in this project backbone for the distribution feeder, grouped into the following categories:

Poles to be removed and replaced

Poles to Be Removed	To Be Replaced With	Quantity (Ea.)
35' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	1 (refer line 81 o LPCE)
35' Wood 4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)

35' Wood 5	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	5 (refer line 79 o LPCE)
35' Wood 5	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
40' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)

40' Wood 3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	7 (refer line 79 o LPCE)
40' Wood 3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	2 (refer line 80 o LPCE)
40' Wood 4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	22 (refer line 79 of the LPCE)
40' Wood 4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	2 (refer line 80 o LPCE)
40' Wood 5	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	16 (refer line 79 of the LPCE)
40' Wood 5	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
40' Steel 5	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)
40' Concrete H3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	7 (refer line 79 o LPCE)
40' Concrete H3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
40' Concrete H4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)
40' Concrete H4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
45' Wood 2	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)

45' Wood 3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	3 (refer line 79 o LPCE)
45' Wood 3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
45' Wood 4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	2 (refer line 79 o LPCE)
45' Steel C3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	4 (refer line 79 o LPCE)

45' Steel S3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)
45' Concrete H4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	2 (refer line 79 o LPCE)
45' Concrete H4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
45' Concrete H6	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	3 (refer line 79 o LPCE)
50' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	1 (refer line 81 o LPCE)
50' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 85' Steel S20	2 (refer line 83 o LPCE)
50' Concrete H6	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' Steel S-8.5	1 (refer line 80 o LPCE)
55' Concrete H6	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' Steel S-8.5	1 (refer line 79 o LPCE)
55' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	2 (refer line 81 o LPCE)
60' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	3 (refer line 81 o LPCE)
60' Wood	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 85' Steel S35	1 (refer line 84 o LPCE)
60' Concrete	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	2 (refer line 81 o LPCE)

70' Steel	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 65' Steel M5281	2 (refer line 81 o LPCE)
70' Steel S8	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 70' Steel S21	1 (refer line 82 o LPCE)
	Total	**104**

New poles to be installed

Description	Quantity (Ea.)
Electrical utility pole, galvanized steel, 12-sided, tapered shaft, 40' S-5.7	8 (refer line 83 of the LPCE)
Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' S-8.5	4 (refer line 83 of the LPCE)
Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 60' S-8.5	1 (refer line 83 of the LPCE)
Total	**13**

Work on Pole FIDs 10905486, 10913090, 10913452, 10913722, 10915526, and 10913063

As mentioned in Section 3.2 above, Pole FIDs 10905486, 10913090, 10913452, 10913722, 10915526, and 10913063 were removed and replaced as part of D-Pole FAASt Project 790427, 679033, and 674092 and T-Pole FAASt Project 750168. This project 812569 DSOW does not include scope or costs associated with that previously funded pole replacement work. The scope of work included in this Project 812569 for these six poles is limited to the following, which is not duplicated in FAASt Project 790427, 679033, 674092 and 750168.

FID	Description of Work Under This DSOW
10905486	Remove conductor and replace with new 556 ACSR conductor
10913090	Remove conductor and replace with new 556 ACSR conductor
10913452	Remove conductor and replace with new 556 ACSR conductor
10913722	Remove conductor and replace with new 556 ACSR conductor
10915526	Remove conductor and replace with new 556 ACSR conductor
10913063	Remove conductor and replace with new 556 ACSR conductor
Total	**6**

- Refer to **Appendix J – 3502-02 Pole Schedule**

The following poles are existing poles that passed the PLA analysis and complied with codes and standards. The table below describes the work to be performed under such poles under this DSOW.

FID	Description of Work Under This DSOW
6231343	Remove conductor and replace with new 556 ACSR conductor
15568610	Remove conductor and replace with new 556 ACSR conductor
10912872	Remove conductor and replace with new 556 ACSR conductor
10913724	Remove conductor and replace with new 556 ACSR conductor
Total	**4**

- **Refer to Appendix J – 3502-02 Pole Schedule Concrete Bases**

Concrete Base Description	Diameter (in.)	Length (ft.)	Amount of Precast Foundation	Volume (CY)
Precast Concrete Base for 50-S8.5, 55-S8.5, 60-S8.5, and 65-S8.5	40	14.5	12	40.2
Total			12	40.2

Steel Galvanized Transformers

Proposed Power Transformer

Power Transformer		Qty.
Ste		
Tra		17
		6
Stainless Steel Transformer	4301.052 / T-3 (3) 50KVA	15
Total		**38**

***Precast Concrete Base Volume Formula / 50' or 60'-S8.5 = {[(p*1.66^2*14.5) - (p*1.1^2 *9.8)] / 27} = 3.35CY**

***T-3: Three-Phase Transformer Bank with Tangential Termination. Guys Wires / Anchoring**

Guys Wires/Anchoring

Description	Quantity (Ea.)
Guy Wires 1/2"	155
Expansion Anchor	92

Feeder	Fuse Cut-Out
3502-02	60

Feeder	Capacitor Bank Units to Replace
3502-02	1

Feeder	Overhead Lighting/Luminaire
3502-02	72

Conductor

Feeder	Wire Size	Wire Length to Replace (C.L.F.)
3502-02	556.5 ACSR Type	1256.11
3502-02	795 ACSR Type	3
3502-02	336 Spacer Type	2.64

Distribution Line Scope of Work

- Install 117 new poles to comply with LUMA's standard for pole loading along a feeder backbone. The pole quantities are summarized in **Appendix J – 3502-02 Pole Schedule**.
- Remove and replace thirty-seven (37) 50KVA transformers and install one (1) new 50KVA transformer. The transformer quantities are summarized in section 4.1, above. The transformers are sized to comply current codes and standards (C&S) - 4301.001 Overhead Electrical Distribution System Manual V04 for replacement and design.
- Remove five hundred seventy-six-point cero five (576.05) C.L.F. of existing conductors per LUMA specification and replace with one thousand two hundred fifty-six-point eleven (1,256.11) C.L.F of 556.5 ACSR, three (3) C.L.F. of 795 ACSR and two-point sixty-four (2.64) C.L.F. of 336 Spacer. The conductor quantities are summarized in section 4.1, above.

- Remove one (1) existing capacitor bank and replace with one (1) capacitor bank. The capacitor bank quantity is described in section 4.1, above.

- Remove seventy-two (72) street lighting on 3 phase primary poles and replace them with forty- five (45) new LED luminaire. Transfer twenty-seven (27) existing LED lighting to new poles. For additional information, please refer to **Appendix A – Pole Schedule.** The luminaries included in this DSOW to be replaced have been verified with the following Streetlight Projects to avoid any duplication of benefits:
  - Aibonito Municipality:
    - P659715

- Remove and replace the distribution equipment, disconnect switches (46), fuse cutout (60), surge arrester (60), crossarms (225), pole insulator (592), suspension insulators (911). Transfer the service drop and the secondary lines. Replace the conductors in compliance with LUMA Overhead Electrical Distribution System Manual included on the Applicant Event Profile in Grants Portal.
- Reinforce existing components according to the Issue for Approval (IFA) proposed design, following the consensus-based codes and standards applicable and the design criteria.
- Install twelve (12) concrete bases and conductor-anchors standards every five (5) poles to prevent cascading pole collapses (e.g., poles collapsing with a domino effect). Please review section 4.1 for more information.
- The work to be completed will be in the current utility and public easement. Poles with easement encroachments are included as part of the engineering design.

Pole Replacement:

- Remove one hundred four (104) existing wood, steel and concrete type poles (see above table entitled "Poles to be removed and replaced") and hardware and replace with one hundred four (104) new poles and hardware within 10 feet of the same location.
- Install thirteen (13) additional poles to comply with structure loading cases along the feeder backbone. The pole quantities are summarized in section 4.1, above.
- Install twelve (12) new concrete foundation bases. The maximum auger width used is 40". The concrete foundation types and quantities are summarized in section 4.1, above.
- Install one hundred fifty-five (155) new guys and ninety-two (92) expansion anchors in compliance with LUMA Overhead Electrical Distribution System Manual included on the Applicant Event Profile in Grants Portal. The guy and anchors quantities are summarized in section 4.1, above. Detail of presented in **Appendix J**.

- All work will be performed within the electrical easement or right of way of the road.

Detail Description for Planned Field Work

B. Material Disposal:

- Chemical waste will be handled and disposed of these materials in authorized facilities in accordance with

applicable local regulations.

- The types of debris that will be removed from the project are luminaires, pole arms, photocells, wiring, transformers, concrete, metal scrap, steel, wood, domestic and construction waste. The debris will be separated and taken to an authorized waste disposal facility in compliance with applicable local regulations.

C. Transformer:

- 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, draining on the oil, and delivery to an authorized waste disposal site.

D. Staging Area:

- The staging area will be in located at LUMA Technical Office in Caguas, PR. Coordinates ([redacted]) and LUMA Electrical Service Center Ave. Los Veteranos, Cayey, PR Coordinates ([redacted]) . LUMA does not anticipate that ground disturbance or stabilization measures will be required because the area is already paved with asphalt. The area will store equipment and materials such as poles, cables, transformers, hardware and construction materials.

Refer to ***Appendix E*** – ***Staging Area*** for location with detailed information.

E. Fill, Gravel, Sand, etc.:

- Fill, gravel, and sand materials will be obtained from an approved supplier as referenced in LUMA Vendor Directory List included in attachment.

F. 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, Filtering Machine and Flatbed platform.
- Vegetation will be brushed using a machete, chainsaw, electric pruner, telescopic pole pruner, bucket truck, and/or chipper.
- All of the above equipment will adhere to Tier 4 EPA Emission Standards where applicable.

G. Vegetation:

- Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to a 10 ft radius surrounding the surface of the pole, but not to exceed the width of the right-of-way. This is for the exclusive purpose of gaining access to the pole to conduct repairs. The costs related to vegetation clearance procedures are covered in project [Project #15F019450000] FAASt #727692 [Region Caguas – Municipality Group Barranquitas] High Density (Vegetation) and Project FAASt #750066 [Region Caguas – Municipality Group Barranquitas] Low Density (Vegetation). The vegetation removal process will be managed in accordance with federal and state regulations. Please refer to **Appendix B – LUMA Project Consideration List**.

H. Access Roads:

- Temporary access roads will be built to access poles. Their coordinates, an aerial map and work to prepare the temporary roads are provided in **Appendix L- Access Road**

H. Ground Disturbance for Poles and Concrete Bases:

- Location and depth of poles and concrete bases to be installed are provided in ***APPENDIX J – PROJECT CONSIDERATION LIST*** (refer to columns W, X and Y). Pole depths are 7 feet to 12 feet. Maximum pole diameter is 30 inches. For further details of the volume impact for the installation of concrete bases and poles, please refer to column W in ***APPENDIX B - PROJECT CONSIDERATIONS LIST***. Replacement poles will be installed within 10 feet of the existing

pole it is replacing.

- The poles that have concrete bases are identified in **Appendix J – 3502-02 Pole Schedule** and their location is shown in **Appendix C – Proposed Design.**
- The ground disturbance for the concrete bases is:

Concrete Base Description	Diameter (in.)	Length (ft.)	Amount of Precast Foundation	Volume (CY
Precast Concrete Base for 50-S8.5, 55-S8.5, 60-S8.5, and 65-S8.5	40	14.5	12	40.2
Total			**12**	**40.2**

*Precast Concrete Base Volume Formula / 50' or 60'-S8.5 = {[(p*1.66^2*14.5) - (p*1.1^2 *9.8)] / 27} = 3.35CY

Proposed 406 Hazard Mitigation Scope of Work

406 Hazard Mitigation Proposal
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:

Choose One (Restoration, Improved or Alternate)
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).

Codes, Specifications, and Standards

Yes, applicable codes and standards will be identified and incorporated into the plans and specifications.

Industry Standards

Yes: applicable industry standards will be identified and incorporated into the plans and specifications.

Project Schedule:

Milestone	Target Date
FEMA Obligation of Funds	March 2026
Start Procurement of Long-Lead Items	August 2025
Start Environmental and Permitting	August 2025
Start Permitting	August 2025
Start Detailed Design Engineering	November 2023
Start Project Construction	June 2026
In-Service-Date	November 2026

Project Cost Estimate:

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. LUMA has allocated 10% of the project cost to mitigate known risks. For more details, refer to **Appendix A -- Detail Cost Estimate**.

COST ESTIMATE

Cost Element	428	406	PROJECT TOTAL
PLANNING	**$ 869,065.97**	**$-**	**$ 869,065.97**
(A&E) Permitting and Assessments	$ 86,270.06	**$-**	$ 86,270.06
(A&E) Environmental Documentation & Management	$ 244,623.72	**$-**	$ 244,623.72
(A&E) Engineering Services & Design	$ 538,172.19	**$-**	$ 538,172.19
MANAGEMENT	**$ 534,576.21**	**$-**	**$ 534,576.21**
(A&E) Project Management	$ 150,443.59	**$-**	$ 150,443.59
(A&E) Construction Management	$ 200,591.45	**$-**	$ 200,591.45
(A&E) Contracting, Procurement & Contract Administration	$ 83,245.45	**$-**	$ 83,245.45
(A&E) Projects Controls (Scheduling, Estimating, Support, Cost Control, Risk, Document Control & Reporting)	$ 100,295.72	**$-**	$ 100,295.72
FEMA Project Name: Distribution Feeders for Caguas Short Term Group 5	**$ 10,465,836.55**	**$-**	**$ 10,465,836.55**
FEMA Project Name: Distribution Feeders for Caguas Short Term Group 5 3502-02, FASST#: 812569, material, labor and equipment.	$ 8,714,147.70	**$-**	$ 8,714,147.70
Start Up/Commissioning	$ 130,712.21	**$-**	$ 130,712.21
Construction Trespass	$ 43,570.73	**$-**	$ 43,570.73
Transportation Expenses	$ 43,570.73		$ 43,570.73
Security (Field 24 hr)	$ 78,427.32	**$-**	$ 78,427.32
Insurance	$ 176,025.78	**$-**	$ 176,025.78
Construction Contingency	$ 978,494.90	**$-**	$ 978,494.90
Escalation	$ 300,887.18	**$-**	$ 300,887.18
GENERAL CONDITIONS	**$ 512,224.55**	**$-**	**$ 512,224.55**

Sales Tax	$ 76,517.17	$-	$ 76,517.17
Municipal construction Tax	$ 435,707.38	$-	$ 435,707.38
COST TOTALS	**$ 12,381,703.28**	**$-**	**$ 12,381,703.28**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		**$ -**
	DE-OBLIGATION FASST IF APPLICABLE?		**$ -**
FAASt ALLOCATIONS	FAAST PROJECT # 812569 - 428		**$ 10,217,566.54**
	FAAST PROJECT # 812569 – 406 HM		$-
	FAAST PROJECT # 812569 Total		**$ 10,217,566.54**
	FAASt A&E # 335168 - 428		**$ 1,403,642.18**
	FAASt A&E # 335168 – 406 HM		$-
	FAASt A&E # 335168 TOTAL		**$ 1,403,642.18**
	FAASt E&M # 673691- 428		**$ 760,494.56**
	FAASt E&M # 673691 – 406 HM		$-
	FAASt E&M # 673691 TOTAL		**$ 760,494.56**

Work To Be completed: $12,381,703.28

A&E Deduction (Global A&E FAASt# 335168): -$1,403,642.18

E&M Deduction (FAASt# 673691): -$760,494.56

Project Total Cost (FAASt Project# 136271): $10,217,566.54

Project Cost Estimate Notes:

1. A&E costs included in this project will be reduced and obligated under the FAASt Project #335168 [A&E PREPA]. The A&E project was obligated to track and account for cost associated with individual FAASt projects.

2. Equipment and material costs included in this project will be deducted from this FAASt Project and obligated under FAASt Project #673691,

Equipment and Materials. Only the base cost of equipment and/or material will be deducted (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project.

Project Notes:

1. Refer to detailed SOW provided in document labelled "*812569-DR4339PR-Feeder 3502-02 DSOW-Detailed Scope of Work Rev. 5 - signed.pdf*".

2. For reference documents Appendix A thru L, see files labeled:

Attachments:

Appendix A – Detail Cost Estimate (LPCE)

Appendix B – LUMA Project Consideration List

Appendix C – Proposed Design

Appendix D – Approved Supplier List

Appendix E – Consent to Federal Funding - FEMA COR3

Appendix F – Feeder Location Maps

Appendix G – Warehouse Locations

Appendix H – LUMA KMZ Files

Appendix I – Ground Disturbance

Appendix J – 3502-02 Pole Schedule

Appendix K – Staging Area

Appendix L – Access Road

406 HMP Scope

406 Hazard Mitigation Measure were not requested by Sub-applicant for this project in this Version. However, there may be Mitigation opportunities that might apply to Version 1 of the Permanent Work Project. The project is Ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
9001	1	Lump Sum	$12,381,703.28	Uncompleted
3510	1	Lump Sum	($1,403,642.18)	Uncompleted
9001	1	Lump Sum	($760,494.56)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$10,217,566.54
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$10,217,566.54
Federal Share (90.00%)	$9,195,809.89
Non-Federal Share (10.00%)	$1,021,756.65

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

6/23/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [Feeder Rebuild 3502-02] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Feeder Rebuild 3502-02] (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.
- 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.

- The Applicant must provide documentation at close-out that proves completion of required Conservation Measures.
- Puerto Rican Boa 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&#65533;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 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-
- - 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Feeder Rebuild 3502-02] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:32 PM PDT

Review Comments

Reviewed, found eligible and reasonable - CLG 09.12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/18/2025 3:38 PM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

Fixed Cost Offer

As a Public Assistance (PA) Subrecipient PR Electric Power Authority (000-UA2QU-00), in accordance with Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Applicant agrees to accept a permanent work subaward based on a Fixed Cost Offer in the amount of $10,217,566.54 for subaward number 108102 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.

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	9/25/2025	$9,195,809.89	90%	Accepted	4339DRPRP01081021

Department of Homeland Security
Federal Emergency Management Agency

v0

General Info

Project #	817956 **P/W #** 108119	**Project Type**	Specialized
Project Category	F - Utilities	**Applicant**	PR Electric Power Authority (000-UA2QU-00)
Project Title	FAASt [Feeder Rebuild # 1303-02] (Distribution)	**Event**	4339DR-PR (4339DR)
Project Size	Large	**Declaration Date**	9/20/2017
Activity Completion Date	9/20/2027	**Incident Start Date**	9/17/2017
		Incident End Date	11/15/2017
Process Step	Obligated		

Damage Description and Dimensions

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

Damage #1414781; FAASt [Feeder Rebuild # 1303-02] (Distribution)

General Facility Information:

- **Facility Type:** Power generation, transmission, and distribution facilities
- **Facility:** FAASt [Feeder Rebuild # 1303-02] (Distribution)
- **Facility Description:** Feeder 1303-02 supplies suburban and rural loads in the municipality of San Juan. Feeder 1303-02 is approximately 0.49 circuit miles long with a three-phase overhead distribution conductor. It starts at Villa Betina substation [redacted]). For more details and a list of all GPS locations to be impacted by this project. LUMA will remove and replace 17 poles and install one (1) new pole along the feeder backbone. All new poles will be located within the easement.
- **Approx. Year Built:** 1967
- **GPS Latitude/Longitude:** [redacted]

Final Scope

1414781 **FAASt [Feeder Rebuild # 1303-02] (Distribution)**

INTRODUCTION

Pursuant to FEMA's Post-Fixed Cost Estimate Obligation SOP (the "SOP") for FAASt projects, FAASt subrecipients must provide to FEMA recovery project scopes of work ("SOW") for the proposed construction work to be performed. The SOW defines the activities that will be performed using Public Assistance ("PA") funding and may include § 406 hazard mitigation proposals ("HMPs"). According to the SOP, FEMA "anticipates that [SOW] submissions might include preliminary designs, including drawings and cost estimates. FEMA also recognizes that, generally, architects and/or engineers do not include or delineate the information needed to enable FEMA to complete programmatic reviews. Therefore, in those cases, subrecipients

must ensure to submit all the information described [in the SOP] and not limit the submission to a drawing set. Refer to Part C - II. Recipient/Subrecipient Checklist for Submissions as a guide to review completeness." SOP at 4.

This document contains the detailed SOW for FEMA PA project #817956 Distribution Feeder Rebuild #1303-02 under DR-4339-PR Public Assistance. The document provides a detailed description of the project, the scope of PA construction activities to be completed, common EHP review information, proposed hazard mitigation measures, and project cost estimates. LUMA is seeking approval from COR3 and FEMA for PA funding for the scope described in this document. LUMA submits this Detailed SOW pursuant to the Transmission and Distribution Operations and Maintenance Agreement between the Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A"), and LUMA, and in accordance with the Consent to Federal Funding Letter issued by PREPA and P3A, which collectively provides the necessary consent for LUMA, as agent of PREPA, to undertake work in connection with any Federal Funding requests related to the T&D System submitted to FEMA. References to "Subrecipient" herein refer to PREPA pursuant to this agreement and consent for LUMA to act as its agent with respect to federal funds.

PROJECT DESCRIPTION

Feeder 1303-02 supplies suburban and rural loads in the municipality of San Juan. Feeder 1303-02 is approximately 0.49 circuit miles long with a three-phase overhead distribution conductor. It starts at Villa Betina substation ([redacted]). For more details and a list of all GPS locations to be impacted by this project, please refer to Section 8.0 and Appendix A – Structural Pole Analysis.

LUMA will remove and replace 17 poles and install one (1) new pole along the feeder backbone. All new poles will be located within the easement. Refer to Appendix A – Structural Pole Analysis, which includes the pole FID, coordinates, type of pole to be installed, type of pole and hardware to be removed, and whether it has a concrete foundation. This scope of work also includes the installation of poles and guy wires within the existing easement. In some cases, guy wires and anchors will fall outside of the existing easement, as shown in Appendix D – Right of Way Plan. At this stage of the project, the easement for the proposed design has been identified and a certified surveying process will be executed later to confirm the easement limits.

FACILITIES

FACILITIES LIST

The electrical feeder 1303-02 serves 2,435 customers along a route to various locations.

Feeder Number	Feeder Name	Customers Counts	GPS Start	GPS End	Phase	Voltage Level (kV)	Construction Date

1303-02	Villa Betina 1303-02	2,435	[redacted]	[redacted]	3-Phase	13.2	More than 20 years

Appendix A – Structural Pole Analysis includes a list of all GPS locations for all poles impacted by this project.

PROJECT AREA MAP WITH BOUNDARIES OF CONSTRUCTION

Please see Project Area Map inside Detailed Scope of Work Rev. 1-pages-4 and 5.

Also refer to Appendix D – Right of Way Plan for aerial pictures also with identified poles and to

Appendix B – LUMA Drawings OH Design.

428 SCOPE OF WORK

The proposed type of work for this project:

[X] Standard Project: Restores the facility/facilities to pre-disaster design and function to locally adopted codes/standards and/or FEMA-approved industry standards.

[ ] Improved Project: Restores the pre-disaster function of the facilities and incorporates improvements or changes to its pre-disaster design not required by codes or standards.

[ ] Subrecipient's request letter included, see Appendix ___.

[ ] Recipient's approval letter included, see Appendix ___.

[ ] Alternate Project: Does not restore the pre-disaster function of the damage facility. The Subrecipient, through the Recipients, must obtain approval from FEMA.

[ ] Subrecipient's request letter included, see Appendix ___.

[ ] Recipient's approval letter included, see Appendix ___.

DESCRIPTION OF PROPOSED WORK TO BE PERFORMED

The tables below summarize the § 428 PA scope of work.

A. Poles

i. Remove and replace seventeen (17) poles to comply with structure loading cases along the feeder backbone. The pole types and quantities are described in the table below.

ii. Install one (1) additional pole to comply with structure loading cases along the feeder backbone. The pole type and quantity is described in the table below.

iii. Remove existing hardware and replace with new hardware.

iv. Depths of the poles to be replaced are provided in Appendix A – Structural Pole Analysis, column E. Pole depths are 7 feet and 7.70 feet. The maximum pole diameter is 23 inches.

v. Remove nine (9) halogen lighting on three (3)-phase primary poles and replace with a nine (9) new LED luminaire. Transfer existing LED lighting to new poles. See Appendix A – Structural Pole Analysis for information on pole FIDs, and coordinates of luminaire transfers.

vi. Remove and dispose of the 17 existing distribution line poles with their related components.

vii. The majority of work to be completed will be under the public domain (10 feet wide from the center line, as per the existing PREPA easement) of state highway PR-176. For work that is outside of the public domain (installation of certain guy wires and anchors, refer to Appendix D – Right of Way Plan) an easement will be obtained per the PREPA Easement Regulation No. 7282. Poles with new easements and encroachments are included as part of the engineering design.

Poles to Be Removed and Replaced

Poles to Be Removed	Poles to Replace the Removed Poles	Quantity (Ea.)
Pole to be removed, 45' concrete H3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' S-8.5	10 (refer line 46 of the LPCE)
Pole to be removed, 45' concrete H3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 50' S-10	4 (refer line 47 of the LPCE)
Pole to be removed, 45' concrete H4	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 55' S-8.5	2 (refer line 48 of the LPCE)
Pole to be removed, 45' concrete H3	Electrical utility pole, steel galvanized, 12-sided, tapered shaft, 55' S-8.5	1 (refer line 48 of the LPCE)
	Total	**17**

New Pole to Be Installed Description Quantity

Description	Quantity (Ea.)
Poles to be installed, steel galvanized, 12-sided, tapered shaft, 50' S-8.5	1 (refer line 46 of the LPCE)
Total	**1**

B. Concrete Bases

i. Install four (4) new concrete foundation bases at locations provided in **Appendix F – Project Considerations** (see columns D and L). The table below summarizes the types of bases installed, their quantity, the volume of concrete per type of base, and the total volume of concrete installed for all bases of a certain type. Refer to Section 11.0 (letter A) for information on ground disturbance of the concrete bases.

Concrete Base Description	Volume of Concrete per Base (CY)	Quantity (Ea.)	Total (CY)
Precast Concrete Base for 50- S8.5, 55-S8.5, 60-S8.5, and 65-S8.5	3.35	1	3.35 (refer to line 42 of the LPCE)
Concrete Bases for 60'-S10, 60'-S13	6.11	3	18.33 (refer to line 42 of the LPCE)
Total		**4**	**21.68**

*Precast Concrete Base Volume Formula / 50' or 60'-S8.5 = {[(p*1.66^2*14.5) - (p*1.1^2 *9.8)] / 27} = 3.35CY

**Precast Concrete Base Volume Formula / 50'-S10 and 60'-S13 = {[(p*2^2*16) - (p*1.1^2 *9.8)] / 27} = 6.11CY

C. Steel Galvanized Transformers

Steel Galvanized Transformers	Interconnection Voltage	Quantity (Ea.)
50 kVA	13.2 kV	1 (refer to line 50 of the LPCE)
	Total	**1**

i. Remove one (1) 50 kVA transformer and replace with one (1) new 50 kVA stainless-steel unit in compliance with current codes and standards for replacement and design. Transformer quantities are described in the table below.

D. Guy Wires / Anchoring

i. Install twenty-one (21) new guy wires, twelve (12) expansion anchors, and one (1) screw type anchor in compliance with the LUMA Overhead Electrical Distribution System Manual, available in Grants Portal - Applicant Event Profiles.

Description	Quantity (Ea.)
Guy Wires 1/2"	21 (refer to line item 34 of LPCE)
Expansion Anchor	12 (refer to line item 35 of LPCE)
Screw Type Anchor	1 (refer to line item 36 of LPCE)

E. Conductors

i. Remove one hundred and four (104) hundred feet of existing conductors and replace with 103.62 C.L.F. of new 556 ACSR conductor per LUMA codes and standards. The conductor quantity is described in the table below.

Description	Quantity (C.L.F.)
556 ACSR Conductor	103.62 (refer to line item 49 of LPCE)

CODES & STANDARDS

Per FEMA's SOP, the locally adopted codes/standards and/or FEMA-approved industry standards used for this project are provided below:

1. LUMA Overhead Electrical Distribution System Manual, version 4.0, available in Grants Portal - Applicant Event Profiles.

406 HAZARD MITIGATION PROPOSAL

FEMA PAPPG v.3.1 provides, "Hazard mitigation is any sustained action taken to reduce or eliminate long-term risk to people and property from natural hazards and their effects." The subrecipient proposes to lessen or eliminate long-term risk to people and property from future natural hazards and their effects by performing the work described in this project to Subrecipient's Distribution Design Criteria, which exceeds required codes and standards. Doing so will directly reduce the potential of future, similar negative consequences of damage to the T&D system, as occurred after Hurricane Maria by improving the system's physical resilience, functional resiliency, or both.

406 HAZARD MITIGATION OPPORTUNITY

This version does not contain a hazard mitigation proposal.

406 SCOPE OF WORK

Not applicable.

COMMON EHP REVIEW INFORMATION

Please check any items applicable to the proposed scope of work in this Project. If an item is checked, provide a description of the scope, extent and location of the selected activity.

? **Ground disturbance outside of existing footprint.** If checked, provide a description of the ground disturbing activities including the extent, location, and depth of the disturbance.

A. Poles and Concrete Bases

Location and depth of poles and concrete bases to be installed are provided in **APPENDIX A - STRUCTURAL POLE ANALYSIS** (refer to columns E, H, I and CM). Pole depths are 7 feet and 7.70 feet. Maximum pole diameter is 23 inches. For further details of the volume impact for the installation of concrete bases and poles, please refer to column D in **APPENDIX F - PROJECT CONSIDERATIONS.**

Concrete Base Description	Diameter (in.)	Depth (ft.)
Precast Concrete Bases for 50-S8.5 and 55-S8.5	40	14.5
Precast Concrete Bases for 50'-S10	48	16

[ ] **Soil testing or boring to be performed as part of pre-construction activities.** If checked, provide a description, location, and dimensions of the testing/boring activities.
[ ] **Relocation of utilities.** If checked, include a description of the relocation including the type of utility, relocation coordinates, and the extent and depth of associated ground disturbance.
[X] **Vegetative Removal.** If checked, describe the removal work to be performed, its location, and its extent.

A. Vegetation clearance will be performed solely to the extent that it allows crews to conduct work and will be limited to a 10 ft radius surrounding the surface of the pole, but not to exceed the width of the right-of-way. This is for the exclusive purpose of gaining access to the pole to conduct repairs. The costs related to vegetation clearance procedures are covered in project San Juan Group A FAASt 723883 Region 1 High Density (Vegetation). The vegetation removal process will be managed in accordance with federal and state regulations.

[X] **Demolition.** If checked, include a description of what will be removed and the extent and depth of any ground disturbing activities. Additionally, include a description of (1) demolition debris type (construction debris, white goods, hazardous materials, etc.); (2) GPS location of temporary debris storage sites; (3) final debris disposal location; and (4) final debris disposal method.

A. Material Disposal:
i. Polychlorinated biphenyl ("PCB"), oil from the transformer and breakers, sealants, and chemical wastes will be disposed of by the contractor in authorized facilities.
ii. The type of debris generated in the process of removal are luminaires, pole arms, photocells, wiring, transformers, concrete,

metal scrap, steel, wood, domestic and construction waste. The debris will be separated and taken to an authorized waste disposal facility.
iii. Photocells are considered universal waste and will be disposed of by the contractor in authorized facilities.

B. Transformer:
i. Transformers will be contained and returned to LUMA in compliance with applicable federal and state regulations. The removal of transformers will require testing the existing oil for PCB levels, draining of the oil, and delivery to the authorized waste disposal site.

[X] **Staging areas, landing area for air transport, and access roads**. If checked, provide GPS location of staging areas, and access roads. Include a description of the extent of any related vegetative removal, ground disturbance, or stabilization measures required (such as gabion walls, retaining walls, paving, etc.).

- Proposed **staging area** has been identified, area of 3,000m2 located at [redacted], Refer to **Appendix C – Staging Area**, which includes several photographs. LUMA does not anticipate that ground disturbance or stabilization measures will be required. Normally growing vegetation on the property will be cleared to the minimum extent necessary to make the staging area workable.

[X] **Fill material**. If the project includes the use of fill material, provide the source of the fill material including the provider's name and address (if known).

- Fill, gravel, and sand materials will be obtained from an approved supplier as referenced in the LUMA Vendor Directory List included in the Applicant Event Profile in Grants Portal.

[ ] **Work in water including coffer dams, dredging, placement of equipment in water, or other work in wetlands**. If checked, provide a description of the activities to be performed in water or wetlands.

The following items are generally intended for buildings:
[ ] **Facility is over 45 years old**. If checked, provide a thorough description of materials to be used and method of repair, including cleaning methods. If substitute materials will be used in the restoration, specify whether they match the original color, texture, and design of the damaged facility.

[ ] **Known renovations to the facility**. If checked, provide dates of any previous major renovations to the interior or exterior of the facility.
[ ] Photos of all sides of the facility are provided.

PROJECT COST ESTIMATE (PCE)
The estimated costs (compliant with Class 1) to complete the project are summarized in the table(s) below. The cost estimate(s) was developed utilizing detailed Architectural and Engineering ("A&E") design information. For a more detailed cost estimate refer to **Appendix G – LUMA LPCE.**

COST ESTIMATE			
Cost Element	**428**	**406**	**PROJECT TOTAL**
PLANNING	$1,262,779.80	$-	$1,262,779.80
(A&E) Permitting and Assessments	$ 17,018.96	$ -	$ 17,018.96
(A&E) Environmental Documentation & Management	$ 10,320.00	$ -	$ 10,320.00
(A&E) Engineering Services & Design	$ 1,035,440.84	$ -	$ 1,035,440.84
MANAGEMENT	**$ 113,742.46**	**$ -**	**$ 113,742.46**

(A&E) Project Management	$ 32,010.07	$ -	$ 32,010.07
(A&E) Construction Management	$ 42,680.10	$ -	$ 42,680.10
(A&E) Contracting, Procurement & Contract Administration	$ 17,712.24	$ -	$ 17,712.24
(A&E) Projects Controls (Scheduling, Estimating, Support, Cost Control, Risk, Document Control & Reporting)	$ 21,340.05	$ -	$ 21,340.05
San Juan Short Term Group 1,	**$ 2,089,682.39**	**$ -**	**$ 2,089,682.39**
San Juan Short Term Group 1, Feeder 1303-02, Project ID: 10013, FEMA Project Name: San Juan Short Term Group 1, Feeder 1303-02, FAAST#: 817956, material, labor and equipment.	$ 1,719,087.22	$ -	$ 1,719,087.22
Start Up/Commissioning	$ 25,786.30	$ -	$ 25,786.30
Construction Trespass	$ 8,595.43	$ -	$ 8,595.43
Transportation Expenses	$ 8,595.43	$ -	$ 8,595.43
Security (Field 24 hr)	$ 15,471.78	$ -	$ 15,471.78
Insurance	$ 34,725.56	$ -	$ 34,725.56
Construction Contingency	$ 13,400.52	$ -	$ 213,400.52
Escalation	$ 64,020.15	$ -	$ 64,020.15
GENERAL CONDITIONS	**$ 94,404.59**	**$ -**	**$ 94,404.59**

Sales Tax	$ 8,450.23	$ -	$ 8,450.23
Municipal Construction Tax	$ 85,954.36	$ -	$ 85,954.36
COST TOTALS	**$3,560,609.24**	**$-**	**$3,560,609.24**
DEDUCTIONS	**TOTAL INSURANCE PROCEEDS RECEIVED**		**$**
	DE-OBLIGATION TO FAASt IF APPLICABLE		**$**
FAASt ALLOCATIONS	FAAST PROJECT # 167446 - 428		**$2,054,461.78**
	FAAST PROJECT # 167446 – 406 HM		$-
	FAAST PROJECT #167446 Total		**$2,054,461.78**
	FAASt A&E # 335168 - 428		**$1,376,522.26**
	FAASt A&E # 335168 – 406 HM		$-
	FAASt A&E # 335168 TOTAL		**$1,376,522.26**
	FAASt E&M # 673691- 428		**$129,625.20**
	FAASt E&M # 673691 – 406 HM		$-
	FAASt E&M # 673691 TOTAL		**$129,625.20**

Work To Be Completed (WTBC): $3,560,609.24
A&E Deduction (Global A&E FAASt 335168): - $1,376,522.26
E&M Deduction (Global E&M FAASt 673691): -$129,625.20
Project Total Cost: $2,054,461.78

Project Notes:

1. Refer to detailed SOW provided in document “817956- DR4339PR- DETAILED SCOPE OF WORK San Juan Short Term Group 1 FEEDER 1303-02 - signed.pdf”

2. Refer to detailed cost estimate provided in document “817956 - DR4339PR- Appendix G - LUMA LPCE.xlsx”.

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

4. A&E cost included in this project will be reduced from this project and obligated under the FAASt Project #335168, A&E, as show in the table above. The A&E project was obligated to track and account for cost associated with individual FAASt projects.

5. Equipment and material costs included in this project will be reduced from this project and obligated under FAASt Project #673691, Equipment and Materials, as shown in the table above. Only the base cost of equipment and/or material will be reduced from this project (not labor). All costs associated with Planning, Management, General Conditions, and Contingencies will remain in this project.

6. For Attachments refer to:

   - Appendix A: Structural Pole Analysis
   - Appendix B: LUMA Drawings OH Design
   - Appendix C: Staging Area

- Appendix D: Right of Way Plan
- Appendix E: Proposed Design KMZ
- Appendix F: Project Considerations
- Appendix G: LUMA LPCE

406 HMP Scope

406 Hazard Mitigation measures were not requested by the sub-applicant for this project in this Version. However, there may be mitigation opportunities that might apply to Version 1 of the Permanent Work Project. The project is ready for Insurance completion.

Cost

Code	Quantity	Unit	Total Cost	Section
9001	1	Lump Sum	$3,560,609.24	Uncompleted
3510	1	Lump Sum	($1,376,522.26)	Uncompleted
9001	1	Lump Sum	($129,625.20)	Uncompleted
9201	1	Lump Sum	$0.00	Completed

CRC Gross Cost	$2,054,461.78
Total 406 HMP Cost	$0.00
Total Insurance Reductions	$0.00
CRC Net Cost	$2,054,461.78
Federal Share (90.00%)	$1,849,015.61
Non-Federal Share (10.00%)	$205,446.17

Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- The 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.
- 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.
- 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.
- 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.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.

Insurance

Additional Information

6/27/2025

Does the Applicant have a Commercial Policy: Yes.

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

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

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

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

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

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

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

O&M Requirements

There are no Obtain and Maintain Requirements on **FAASt [Feeder Rebuild # 1303-02] (Distribution)**.

406 Mitigation

There is no additional mitigation information on **FAASt [Feeder Rebuild # 1303-02] (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.
- The Subrecipient and/or Subrecipient's contractor must follow the Low Impact Debris Removal Stipulations (LIDRS) outlined in Appendix E of the Project-Specific Programmatic Agreement Among FEMA, the SHPO, ACHP, COR3, and PREPA (PSPA), executed on August 2, 2022.
- 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 haven't been identified yet. The Subrecipient and/or private operator must provide the information of any additional staging areas or work pads for EHP evaluation as soon as available specially if any construction activity will be necessary to prepare the site(s). Information for staging areas and/or work pads confined to previously disturbed or hardened surfaces can be provided at close-out.
- 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 Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and execute orders prior to a subrecipient or their contractor commencing 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 closeout.
- &#65533; 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. &#65533; 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. &#65533; 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.

EHP Additional Info

There is no additional environmental historical preservation on **FAASt [Feeder Rebuild # 1303-02] (Distribution)**.

Final Reviews

Final Review

Reviewed By LEFRANC-GARCIA, CARLOS L. **Reviewed On** 09/12/2025 6:41 PM PDT

Review Comments

Reviewed, found eligible and reasonable - CLG 09.12

Recipient Review

Reviewed By Mulero, Noel **Reviewed On** 09/18/2025 5:12 PM PDT

Review Comments

Recipient review completed. Applicant must ensure to compliance with all regulatory requirements, Record of Environmental Consideration (REC) Special Conditions and PA policy. Project is ready for applicant review.

Project Signatures

Reviewed By Unsigned **Reviewed On** Unsigned

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 $2,054,461.78 for subaward number 108119 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.

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	9/25/2025	$1,849,015.61	90%	Accepted	4339DRPRP01081191