

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

<b>NEPR</b>
<b>Received:</b>
Jul 31, 2024
9:27 PM

**IN RE:**

IN RE: REVIEW OF THE PUERTO RICO  
ELECTRIC POWER AUTHORITY'S 10-  
YEAR INFRASTRUCTURE PLAN-  
DECEMBER 2020

**CASE NO. NEPR-MI-2021-0002**

**SUBJECT: Motion Submitting Three Amended  
Scopes of Work, One Scope of Work, an Updated  
Project List, and Request for Confidentiality and  
Supporting Memorandum of Law**

**MOTION SUBMITTING THREE AMENDED SCOPES OF WORK, ONE SCOPE OF  
WORK, AN UPDATED PROJECT LIST, AND REQUEST FOR CONFIDENTIALITY AND  
SUPPORTING MEMORANDUM OF LAW**

**TO THE PUERTO RICO ENERGY BUREAU:**

COME NOW LUMA Energy, LLC<sup>1</sup>, and LUMA Energy ServCo, LLC<sup>2</sup>, (jointly referred to as "LUMA"), through the undersigned legal counsel, respectfully submits the following:

**I. Submittal of Amended Scopes of Work and Initial Scope of Work**

1. On March 26, 2021, this Puerto Rico Energy Bureau ("Energy Bureau") issued a Resolution and Order in the instant proceeding (the "March 26 Order"), ordering—in pertinent part—that the Puerto Rico Electric Power Authority ("PREPA") submit to the Energy Bureau the specific projects to be funded with Federal Emergency Management Agency ("FEMA") funds or any other federal funds at least thirty (30) calendar days prior to submitting these projects to the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3"), FEMA or any other federal agency. *See* March 26 Order on pages 18-19. The Energy Bureau thereafter

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<sup>1</sup> Register No. 439372.

<sup>2</sup> Register No. 439373.

determined that this directive should be applied to both PREPA and LUMA. *See* Resolution and Order of August 20, 2021 (“August 20 Order”) on page 3.

2. Consequently, LUMA has submitted several Transmission and Distribution projects to this Energy Bureau beginning on July 8, 2021. LUMA has submitted 261 initial scopes of work (“ISOWs”) to date. The Energy Bureau has approved all the SOWs submitted by LUMA as of June 28, 2024.

**A. Submittal of Amended Scopes of Work**

3. On July 8, 2021, LUMA filed a *Motion Submitting List of Projects and Twenty-Eight Scopes of Work*. Therein, among other considerations, LUMA submitted twenty-eight (28) SOWs for T&D Projects for the Energy Bureau’s review and approval before submitting them to COR3 and FEMA (“July 8<sup>th</sup> Motion”). Among the SOWs submitted to this Energy Bureau was the “TL1900 Dos Bocas HP to San Sebastian TC” T&D Project.

4. On August 20, 2021, the Energy Bureau entered a Resolution and Order in which, among other considerations, it approved all twenty-eight (28) T&D projects submitted by LUMA in the July 8<sup>th</sup> Motion, including the “TL1900 Dos Bocas HP to San Sebastian TC” T&D Project, and deemed them necessary to improve the system’s reliability (“August 20<sup>th</sup> Order”). Further, the Energy Bureau ordered LUMA to seek the Energy Bureau’s approval immediately should the scope of the approved projects change.

5. On October 4, 2021, LUMA filed a *Motion Submitting Updated List of Transmission and Distribution Projects and Thirty-Eight Scopes of Work*, whereby LUMA submitted thirty-eight (38) SOWs for T&D Projects for the Energy Bureau’s review and approval before submitting them to COR3 and FEMA (“October 4<sup>th</sup> Motion”). Among the SOWs submitted

to this Energy Bureau were the “TL2400 Dos Bocas HP to America Apparel” and “Victoria TC” T&D Projects.

6. On October 18, 2021, the Energy Bureau entered a Resolution and Order in which, among other considerations, it approved all thirty-eight (38) T&D projects submitted by LUMA in the October 4<sup>th</sup> Motion, including the “TL2400 Dos Bocas HP to America Apparel” and “Victoria TC” T&D Projects, and deemed them necessary to improve the system’s reliability (“October 18<sup>th</sup> Order”). Further, the Energy Bureau ordered LUMA to seek the Energy Bureau’s approval immediately should the scope of the approved projects change.

7. LUMA has since identified the need to amend the “TL1900 Dos Bocas HP to San Sebastian TC” T&D Project due to significant cost increases (“Amended TL1900 Dos Bocas HP to San Sebastian TC SOW”). The Amended TL1900 Dos Bocas HP to San Sebastian TC SOW reflects updated costs, design standards, and additional items.

8. Similarly, LUMA requires amendments to the “TL2400 Dos Bocas HP to America Apparel” and “Victoria TC” T&D Projects (“Amended TL2400 Dos Bocas HP to America Apparel SOW” and “Amended Victoria TC SOW”). These amended SOWs include revised costs, design standards, and additional items.

9. LUMA requests that the Energy Bureau replace the previously approved SOWs, as detailed in this motion, and substitute them with those submitted as *Exhibits 1, 2, and 3* to this Motion. LUMA also requests that this Energy Bureau approve the Amended SOWs that are submitted with this Motion, to wit, Amended TL1900 Dos Bocas HP to San Sebastian TC SOW, Amended TL2400 Dos Bocas HP to America Apparel SOW, and Amended Victoria TC SOW.

## **B. Submittal of Initial Scope of Work**

10. In accordance with the March 26<sup>th</sup> Order issued in this instant proceeding, LUMA also submits one SOW, as *Exhibit 4*, for this Energy Bureau's review and approval prior to submittal to COR3 and FEMA in thirty (30) days for the following project: "Arecibo Sectionalizer,".

## **II. Updated Project List**

11. LUMA also submits to this Energy Bureau an updated Project List, containing a list of the total initial SOWS submitted to the Energy Bureau, a list of approved projects by the Energy Bureau with assigned FEMA Accelerated Awards Strategy ("FAAST") numbers and a list of projects with approved FEMA funding obligations as of Q4 FY2024. *See Exhibit 5*.

## **III. Request for Confidentiality and Supporting Memorandum of Law**

12. LUMA hereby submits as *Exhibits 1, 2, 3, and 4* to this Motion, the Amended TL1900 Dos Bocas HP to San Sebastian TC SOW, the Amended TL2400 Dos Bocas HP to America Apparel SOW, the Amended Victoria TC SOW, and the "Arecibo Sectionalizer" ISOW.

13. LUMA hereby requests that *Exhibits 1, 2, 3 and 4* be maintained confidential and submits redacted versions of each for public disclosure, as well as confidential unredacted versions.

14. LUMA submits a Memorandum of Law stating the legal basis for which the unredacted versions of *Exhibits 1, 2, 3 and 4*, should be filed under seal of confidentiality. As will be explained below, the unredacted versions of SOWs in *Exhibits 1, 2, and 3* and the unredacted version of the Initial SOW submitted in *Exhibit 4*, should be protected from public disclosure as these documents contain confidential information associated with Critical Energy Infrastructure

Information (“CEII”) as defined in federal regulations, 18 C.F.R. §388.113; 6 U.S.C. §§ 671-674, and per the Energy Bureau’s Policy on Management of Confidential Information (the “SOW with CEII”). *See* Energy Bureau’s Policy on Management of Confidential Information, CEPR-MI-2016-0009 (“Policy on Management of Confidential Information”), issued on August 31, 2016, as amended by the Resolution dated September 20, 2016.

15. In addition, the SOWs include personal identifying information of individuals who are LUMA staff or contractors protected under Puerto Rico’s legal framework on privacy emanating from the Puerto Rico Constitution and should also be protected pursuant to the Energy Bureau’s Policy on Management of Confidential Information.

#### **IV. Memorandum of Law in Support of Request for Confidentiality**

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

16. 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 (2024). 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).

17. 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).

18. 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 Puerto Rico Rules of Evidence.

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

Energy Bureau must also file both a “redacted” or “public version” and an “unredacted” or “confidential” version of the document that contains confidential information. *Id.* at ¶ 6.

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

1. Trade Secret Information

Any document designated by the [Energy Bureau] as Validated Confidential Information because it is a trade secret under Act 80-2011 may only be accessed by the Producing Party and the [Energy Bureau], unless otherwise set forth by the [Energy Bureau] or any competent court.

2. Critical Energy Infrastructure Information (“CEII”)

The information designated by the [Energy Bureau] as Validated Confidential Information on the grounds of being CEII may be accessed by the parties’ authorized representatives only after they have executed and delivered the Nondisclosure Agreement.

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

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

21. Furthermore, Energy Bureau 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.”

### **B. Discussion in Support of Request for Confidential Treatment**

22. 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.

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

Critical energy infrastructure information means specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that:

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

*Id.*

24. 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.*

25. 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”).<sup>3</sup> 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).<sup>4</sup>

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<sup>3</sup> Regarding protection of voluntary disclosures of critical infrastructure information, 6 U.S.C. § 673, provides in pertinent part, that CII:

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

<sup>4</sup> 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

26. The Amended SOWs included in *Exhibits 1, 2, and 3* and the Initial SOW submitted as *Exhibit 4*, contain CEII that under relevant federal law and regulations, are protected from public disclosure. LUMA stresses that the unredacted versions of the Amended SOWs and the Initial SOW 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.<sup>5</sup> In at least two proceedings on Data Security,<sup>6</sup> and Physical Security,<sup>7</sup> this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

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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.

<sup>5</sup> 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 Minigrad Transmission and Distribution Investments*, NEPR MI 2020-0016 (where PREPA filed documents under seal of confidentiality invoking, among others, that a filing included confidential information and CEII); *In re Review of the Puerto Rico Electric Power Authority Integrated Resource Plan*, CEPR-AP-2018-0001 (Resolution and Order of July 3, 2019 granting confidential designated and request made by PREPA that included trade secrets and CEII) *but see* Resolution and Order of February 12, 2021 reversing in part, grant of confidential designation).

<sup>6</sup> *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

<sup>7</sup> *In re Review of the Puerto Rico Electric Power Authority Physical Security Plan*, NEPR-MI-2020-0018.

27. The Amended SOWs and the Initial SOW contain diagrams that qualify as CEII because they contain information on the engineering and design of critical infrastructure, as existing and proposed, relating to the transmission of electricity, which is provided in sufficient detail that could potentially be helpful to a person planning an attack on this or other energy infrastructure facilities interconnected with or served by this facility and equipment. In addition, the Amended SOWs and the Initial SOW qualify as CEII because each of these documents contains the express coordinates to power transmission and distribution facilities (18 C.F.R. § 388.113(iv)). These specific coordinates could potentially be helpful to a person planning an attack on the energy facilities listed in the SOWs. The pages that contain the CEII are identified within the table in Part C of this motion, which summarizes the hallmark requests for confidentiality for the Amended SOWs and the Initial SOW. The information identified as confidential in the table 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 SOWs with CEII in *Exhibit 1, 2, 3, and 4* from disclosure, given the nature and scope of the details included in those portions of the Exhibit.

28. This Energy Bureau has granted requests by LUMA to protect CEII in connection with LUMA's submissions of ISOWs in the present docket. *See e.g.* Resolution and Order of July 24, 2024, table 1 on page 4 (four (4) ISOWs); Resolution and Order of June 28, 2024, table 2 on page 3 (one (1) ISOW); Resolution and Order of June 28, 2024, table 1 on page 3 (one (1) Amended ISOW); Resolution and Order of May 7, 2024, table 2 on pages 4-5 (one (1) Amended ISOW and eleven (11) ISOWs). Relatedly, The Energy Bureau has also granted LUMA's requests 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).

29. LUMA respectfully submits that designation of portions of the SOWS as CEII is a reasonable and necessary measure to protect the specific location and other engineering and design information of the energy facilities listed or discussed in the *Exhibits 1, 2, 3 and 4*. 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.

30. In addition, portions of the Amended SOWs and the Initial SOW, contain the name, signature, and role of individuals who are LUMA employees or contractors who reviewed the SOW as part of LUMA's internal review and approval of each document. LUMA respectfully requests that information on the names, signatures, and roles of these individuals be maintained confidentially in the context that these reveal details of their employment duties and that their protection is in the public interest and aligned with Puerto Rico's legal framework on privacy which protects from the disclosure of personal information. *See e.g.*, Const. ELA, Art. II, Sections 8 and 10, which protect the right to control personal information and distinctive traits, which applies *ex proprio vigore* and against private parties. *See also e.g. Vigoreaux v. Quiznos*, 173 DPR 254, 262 (2008); *Bonilla Medina v. P.N.P.*, 140 DPR 294, 310-11 (1996), *Pueblo v. Torres Albertorio*, 115 DPR 128, 133-34 (1984). *See also* Act 122-2019, Article 4(vi) (which provides, as an exception to the rule on public disclosure, information the disclosure of which could invade the privacy of third parties or affect their fundamental rights). It is respectfully submitted that the redaction of the aforementioned information does not affect the public's or the Energy Bureau's

review of the SOWs nor interfere with processes before this Energy Bureau. Therefore, on balance, the public interest to protect privacy weighs in favor of protecting the relevant portions of the SOWs.

31. Relatedly, the Energy Bureau has also granted requests by LUMA to protect individual’s personal information in connection with LUMA’s submissions of ISOWs in the present docket. *See e.g.* Resolution and Order of July 24, 2024, table 1 on page 4 (four (4) ISOWs); Resolution and Order of June 28, 2024, table 2 on page 3 (one (1) ISOW); Resolution and Order of June 28, 2024, table 1 on page 3 (one (1) Amended ISOW); Resolution and Order of May 7, 2024, table 2 on pages 4-5 (one (1) Amended ISOW and eleven (11) ISOWs).

**C. Identification of Confidential Information**

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

<b>Document</b>	<b>Name</b>	<b>Pages in which Confidential Information is Found, if applicable</b>	<b>Summary of Legal Basis for Confidentiality Protection, if applicable</b>	<b>Date Filed</b>
Exhibit 1	TL1900 Dos Bocas HP to San Sebastian TC	Pages 1 and 4	Right to privacy ( <i>see, e.g.</i> , Const. ELA, Art. II, Sections 8 and 10)	July 31, 2024

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
		Page 5	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	July 31, 2024
Exhibit 2	TL2400 Dos Bocas HP to America Apparel	Pages 1 and 4	Right to privacy ( <i>see, e.g.</i> , Const. ELA, Art. II, Sections 8 and 10)	July 31, 2024
		Page 5	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	July 31, 2024
Exhibit 3	Victoria TC	Pages 1 and 4	Right to privacy ( <i>see, e.g.</i> , Const. ELA, Art. II, Sections 8 and 10)	July 31, 2024
		Pages 5, 12, 13	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	July 31, 2024

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 4	Arecibo Sectionalizer	Pages 1 and 4	Right to privacy ( <i>see, e.g.</i> , Const. ELA, Art. II, Sections 8 and 10)	July 31, 2024
		Pages 5, 10 and 11	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	July 31, 2024

**WHEREFORE**, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned; **approve** the three Amended SOWs and Initial SOW for T&D Projects submitted as *Exhibit 1, 2, 3, and 4* to this Motion; **grant** the request for confidential treatment of *Exhibit 1, 2, 3, and 4* and **accept** the updated project list of T&D projects submitted as *Exhibit 5* to this motion.

**RESPECTFULLY SUBMITTED.**

In San Juan, Puerto Rico, this 31<sup>st</sup> day of July 2024.

We hereby certify that we filed this Motion using the electronic filing system of this Energy Bureau and that we will send an electronic copy of this Motion to counsel for PREPA, Alexis Rivera, arivera@gmlex.net, and to Genera PR LLC, through its counsel of record, Jorge Fernández-Reboredo, jfr@sbgblaw.com and Alejandro López Rodríguez, alopez@sbgblaw.com.



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Exhibit 1

*Redacted Version (Unredacted Version Submitted under Seal of Confidentiality)*




	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## DOCUMENT REVISION HISTORY


This table contains the history of the revisions made to this FEMA Project Scope of Work.

Rev.	Effective Date	Description of Change
0	04JUL2021	Initial Release
1	14JUN2024	Cost estimate Review

	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

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	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 1.0 OVERVIEW

<b>Project Name:</b>	Line 1900 Dos Bocas HP to San Sebastian TC
<b>Project type:</b>	Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved.
<b>Region:</b>	Arecibo - Mayaguez
<b>Program Brief Owner:</b>	██████████
<b>Project Sponsor:</b>	██████████
<b>Damage Number:</b>	206253
<b>Damaged Inventory / Asset Category:</b>	Island Wide Transmission Line System
<b>FEMA Project Number:</b>	334331

## 2.0 INTRODUCTION

The purpose of this document is to present and update an Initial Scope of Work (ISOW) with Cost Estimates to be submitted to the Central Office for Recovery, Reconstruction and Resilience for Puerto Rico (COR3) and the Federal Emergency Management Agency (FEMA) for projects under DR-4339-PR Public Assistance. The completed document will be reviewed by COR3 and FEMA to create and version a specific project worksheet and post fixed-cost estimates to repair, restore, or replace eligible facilities including Section 406 hazard mitigation for a specific project.

This document provides a description of the project including an initial scope of work, cost estimates as well as Environmental & Historical Preservation (EHP) relevant information and proposed 406 hazard mitigation work.


LUMA Energy provides the Operation and Maintenance of the Puerto Rico Transmission and Distribution System. The Puerto Rico Power Electric Authority (PREPA) is the government agency that owns the facilities, sites, and systems identified in this Scope of Work that are eligible as critical services facilities as defined in the PAAP (Section 428) and BBA 2018 guidance documents.

## 3.0 FACILITIES

### 3.1 Facilities Description

The specific facilities included in this proposed project are structures (including their foundations), framing and insulators, load break switches (manual and automated), conductors, guy wires, anchoring, grounding assemblies, and any other associated components.

Most of the construction along this line segment consists of wood monopole guyed structures with some interspersed self-supporting steel and concrete monopoles. This line primarily traverses forested and urban areas between Dos Bocas HP substation and San Sebastian TC substation.

	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

### 3.2 Facilities List

The facilities listed below are part of the 29.4 circuit miles of overhead transmission line for 38kV Line 1900 from Dos Bocas HP to San Sebastian TC.

Name	Number	GPS Start	GPS End	Voltage (kV)
Dos Bocas HP – San Sebastian TC	1900	[REDACTED]	[REDACTED]	38

## 4.0 PROJECT SCOPE OF WORK

The scope of work for Line 1900 from Dos Bocas HP to San Sebastian TC will consist of the repair restoration, or replacement of damaged elements and functionally interdependent non-damaged elements of the overhead portions of the line as allowed by FEMA Public Assistance Alternative Procedures (Section 428).

In certain circumstances, transmission structures may need to be replaced to meet applicable codes and standards. The transmission lines will undergo modeling and analysis to validate design criteria, including electrical clearances and mechanical loading requirements. The engineering team will perform field assessments of overhead facilities and document damaged assets to be repaired or replaced. The results of this detailed assessment will be used to define the scope of work. Field surveys to locate existing alignment and property boundaries as well as geotechnical investigations may also be performed to assist in the scoping efforts.


The repair or replacement of a transmission structure and components may include: replacing insulators with polymer type; repairing, replacing, or adding guy wires; repairing or replacing anchors, structure connections, structure foundations, or portions of the foundations; restoring the integral ground of the structure and overhead ground conductor; restoring communications associated with the transmission line; replacing conductor spans when broken with splices, bird cages, pitting, burns, kinks, or stretched conductors; repairing or adding vibration and/or drag dampers or armor rods; and other repairs necessary to conform with codes and standards based upon engineering design specifications and requirements. In order to comply with codes and standards and to allow for construction access, vegetation removal will be considered in the scope of work. The scope of vegetation removal will be defined during the preliminary engineering phase.

The preliminary engineering phase may also dictate a need for soil boring or testing to evaluate suitability for the installation of structures/poles or underground cable systems. When possible, facilities will remain along their existing route and within the existing right-of-way.

The final SOW (which includes the plans and specifications) and cost estimate are expected to be completed by Q2 FY2025 and construction is estimated to be completed by Q4 FY2027.

## 5.0 TYPE OF PROJECT

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

	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

2. **Improved Project:** Restores the pre-disaster function of the facility(s) and incorporates improvements including any:
  - a. Other improvements, not required by codes and standards.
  - b. Changes in facility size, capacity, dimension, or footprint.
3. **Alternate Project:** Does not restore the pre-disaster function of the damaged facility(s).

<b>Choose One (Restoration, Improved or Alternate)</b>
Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved.
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 work designation is considered initial and is based on currently available information. The type of work designation may be revised based on the results of the completed preliminary A&E work.

## 6.0 PRELIMINARY ENGINEERING


**Is architectural and engineering (A&E) funding required to help define the intended scope of work?**

Yes, architectural and engineering funding is required to help define the intended scope of work.
---

## 7.0 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 (BBA) 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) which 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).

	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

### 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.

## 8.0 COST ESTIMATE

Cost estimates for this work are prepared in conformance with class 5 accuracy, which is between -50% and +100% of the final project cost. The estimate includes and is not limited to materials, construction labor and equipment, engineering, management, and contingencies.

<b>Estimated Budget for Architectural &amp; Engineering Design:</b>	\$9,283,634
<b>Estimated Budget for Procurement &amp; Construction:</b>	\$108,382,893
<b>Estimated Overall Budget for the Project:</b>	<b>\$117,621,527</b>

## 9.0 406 HAZARD MITIGATION PROPOSAL


### 9.1 406 Mitigation Opportunity Scope of Work

During the preliminary design phase, LUMA will develop and propose 406 Hazard Mitigation proposals consistent with the damages. These proposals will be documented with BCAs.

### 9.2 406 Mitigation Opportunity Cost Estimate

<b>Estimated Budget for Architectural &amp; Engineering to Design:</b>	Unknown at this time.
<b>Estimated Budget for Procurement:</b>	Unknown at this time.
<b>Estimated Budget for Construction:</b>	Unknown at this time.
<b>Estimated Overall Budget for the Project:</b>	Unknown at this time.

Note: If available, detailed engineering cost estimates will be included as an attachment.

	<b>Document Title:</b> Line 1900 Dos Bocas HP to San Sebastian TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 10.0 ENVIRONMENTAL & HISTORIC PRESERVATION REQUIREMENTS

EHP considerations will be identified and evaluated during the preliminary design phase and submitted to FEMA for review. Requirements will be incorporated into the final design and construction documents, which must be approved by FEMA prior to construction activities.


## 11.0 ATTACHMENTS

Attachments are not included.

**END OF DOCUMENT**

Exhibit 2

*Redacted Version (Unredacted Version Submitted under Seal of Confidentiality)*

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>


## FEMA Project Scope of Work (Initial)

Project Name:  
 Line 2400 Dos Bocas HP to America Apparel  
 Revision: 1

### APPROVALS

The signatures below formally approve the FEMA Project Scope of Work.


Program Brief Management Leadership (PBML)		
Program Brief Manager or Representative	Signature	Date
██████████		06/16/2024
Program Brief Owner	Signature	Date
██████████		06/14/2024
Grants Manager	Signature	Date
██████████		06/14/2024

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## DOCUMENT REVISION HISTORY


This table contains the history of the revisions made to this FEMA Project Scope of Work.

Rev.	Effective Date	Description of Change
0	13SEP2021	Initial Release
1	14JUN2024	Cost Estimate Review

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

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	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 1.0 OVERVIEW

<b>Project Name:</b>	Line 2400 Dos Bocas HP to America Apparel
<b>Project type:</b>	Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved.
<b>Region:</b>	Arecibo
<b>Program Brief Owner:</b>	██████████
<b>Project Sponsor:</b>	██████████
<b>Damage Number:</b>	206253
<b>FEMA Project Number:</b>	Island Wide Transmission Line System

## 2.0 INTRODUCTION

The purpose of this document is to present and update an Initial Scope of Work (ISOW) with Cost Estimates to be submitted to the Central Office for Recovery, Reconstruction and Resilience for Puerto Rico (COR3) and the Federal Emergency Management Agency (FEMA) for projects under DR-4339-PR Public Assistance. The completed document will be reviewed by COR3 and FEMA to create and version a specific project worksheet and post fixed-cost estimates to repair, restore, or replace eligible facilities including Section 406 hazard mitigation for a specific project.

This document provides a description of the project including an initial scope of work, cost estimates as well as Environmental & Historical Preservation (EHP) relevant information and proposed 406 hazard mitigation work.


LUMA Energy provides the Operation and Maintenance of the Puerto Rico Transmission and Distribution System. The Puerto Rico Power Electric Authority (PREPA) is the government agency that owns the facilities, sites, and systems identified in this Scope of Work that are eligible as critical services facilities as defined in the PAAP (Section 428) and BBA 2018 guidance documents.

## 3.0 FACILITIES

### 3.1 Facilities Description

The specific facilities included in this project are structures (including their foundations), framing and insulators, load break switches (manual and automated), conductors, guy wires, anchoring, grounding assemblies, and any other associated components.

Most of the construction along this line segment consists of wood monopole guyed structures, with some interspersed self-supporting steel and concrete monopoles. This line primarily traverses forested and urban areas between the Dos Bocas HP substation and America Apparel.

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

### 3.2 Facilities List

The facilities listed below are Line 2400 consisting of a 12.8-mile circuit of 38 kV overhead transmission line between Dos Bocas HP substation and America Apparel substation. This line is a Near-Term priority identified by LUMA.

Name	Number	GPS Start	GPS End
Dos Bocas HP to American Apparel	2400	██████████ ██████████	██████████ ██████████

## 4.0 PROJECT SCOPE OF WORK

### 4.1 Scope of Work Description


The scope of work for Line 2400 Dos Bocas HP to America Apparel will consist of repairing, restoring, or replacing damaged elements and functionally interdependent non-damaged elements of the overhead portions of the line as allowed by FEMA Public Assistance Alternative Procedures (Section 428).

Transmission structures may need to be replaced in certain circumstances to meet applicable codes and standards. The transmission lines will undergo modeling and analysis to validate design criteria, including electrical clearances and mechanical loading requirements. The engineering team will perform field assessments of overhead facilities, and document damaged assets to be repaired or replaced. The results of these detailed assessments will be used to define the scope of work. Field surveys to locate existing alignment and property boundaries and geotechnical investigations may also be performed to assist in the scoping efforts.

The repair or replacement of a transmission structure and components may include: replacing insulators with polymer type; repairing, replacing, or adding guy wires; repairing or replacing anchors, structure connections, structure foundations, or portions of the foundations; restoring the integral ground of the structure and overhead ground conductor; restoring communications associated with the transmission line; replacing conductor spans when broken with splices, bird cages, pitting, burns, kinks, or stretched conductors; repairing or adding vibration and/or drag dampers or armor rods; and other repairs necessary to conform with codes and standards based upon engineering design specifications and requirements. Vegetation removal will be considered part of the scope of work to comply with codes and standards and allow for construction access. The scope of vegetation removal will be defined during the preliminary engineering phase.

The preliminary engineering phase may also dictate a need for soil boring or testing to evaluate suitability for the installation of structures/poles or underground cable systems. Facilities will remain along their existing route and within the right-of-way when possible.

The final SOW (which includes plans and specifications) and estimated cost are expected to be completed by Q2 FY2026, and construction is estimated to be completed by Q3 FY2029.

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 5.0 TYPE OF PROJECT

1. **Restoration to Codes/Standards:** Restores the facility(s) to pre-disaster function and to approved codes/standards.
2. **Improved Project:** Restores the pre-disaster function of the facility(s) and incorporates improvements including any:
  - a. Other improvements, not required by codes and standards.
  - b. Changes in facility size, capacity, dimension, or footprint
3. **Alternate Project:** Does not restore the pre-disaster function of the damaged facility(s).

<b>Choose One (Restoration, Improved or Alternate)</b>
Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved.
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 work designation is considered initial and is based on currently available information. The type of work designation may be revised based on the completed preliminary A&E work results.

## 6.0 PRELIMINARY ENGINEERING


**Is architectural and engineering (A&E) funding required to help define the intended scope of work?**

Yes, architectural and engineering funding required to help define the intended scope of work.
--

## 7.0 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 (BBA) 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 the vast majority of the consensus-based codes, specifications, and standards listed in FEMA Recovery Interim Policy 104-009-11 Version 2.1 (December 20, 2019).

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

### 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.

## 8.0 COST ESTIMATE

Cost estimates to complete this work have been prepared in conformance with class 5 accuracy, which is between -50% and +100% of the final project cost. The estimate includes and is not limited to materials, construction labor and equipment, engineering, management, and contingencies.

<b>Estimated Budget for Architectural &amp; Engineering Design:</b>	\$4,455,731
<b>Estimated Budget for Procurement &amp; Construction:</b>	\$50,187,637
<b>Estimated Overall Budget for the Project:</b>	<b>\$54,643,368</b>

## 9.0 406 HAZARD MITIGATION PROPOSAL


### 9.1 406 Mitigation Opportunity Scope of Work

During the preliminary design phase, LUMA will develop 406 Hazard Mitigation proposals consistent with the damages. These proposals will be supported by BCAs.

### 9.2 406 Mitigation Opportunity Cost Estimate

<b>Estimated Budget for Architectural &amp; Engineering to Design:</b>	Unknown at this time.
<b>Estimated Budget for Procurement:</b>	Unknown at this time.
<b>Estimated Budget for Construction:</b>	Unknown at this time.
<b>Estimated Overall Budget for the Project:</b>	Unknown at this time.

Note: Detailed engineering cost estimates will be included as an attachment if available.

	<b>Document Title:</b> Line 2400 Dos Bocas HP to America Apparel FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 10.0 ENVIRONMENTAL & HISTORIC PRESERVATION REQUIREMENTS

EHP considerations will be identified and evaluated during the preliminary design phase and submitted to FEMA for review. Requirements will be incorporated into the final design and construction documents, which must be approved by FEMA before construction activities.

## 11.0 ATTACHMENTS


Attachments are not included.

**END OF DOCUMENT**

Exhibit 3

*Redacted Version (Unredacted Version Submitted under Seal of Confidentiality)*




	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## DOCUMENT REVISION HISTORY


This table contains the history of the revisions made to this FEMA Project Scope of Work.

Rev.	Effective Date	Description of Change
0	May 8, 2024	Initial Release
1	June 14, 2024	Remove statement on Project Scope of Work section.

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

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	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## 1.0 OVERVIEW

<b>Project Name:</b>	Victoria TC
<b>Project type:</b>	Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved
<b>Region:</b>	Mayaguez
<b>Program Brief Owner:</b>	██████████
<b>Project Sponsor:</b>	██████████
<b>Damage Number:</b>	223189
<b>Damaged Inventory / Asset Category:</b>	Islandwide Substations
<b>FEMA Project Number:</b>	547343

## 2.0 INTRODUCTION

The purpose of this document is to present and update an Initial Scope of Work (ISOW) with Cost Estimates to be submitted to the Central Office for Recovery, Reconstruction and Resilience for Puerto Rico (COR3) and the Federal Emergency Management Agency (FEMA) for projects under DR-4339-PR Public Assistance. The completed document will be reviewed by COR3 and FEMA to create and version a specific project worksheet and post fixed-cost estimates to repair, restore, or replace eligible facilities including Section 406 hazard mitigation for a specific project.

This document provides a description of the project including an initial scope of work, cost estimates as well as Environmental & Historical Preservation (EHP) relevant information and proposed 406 hazard mitigation work.


LUMA Energy provides the Operation and Maintenance of the Puerto Rico Transmission and Distribution System. The Puerto Rico Power Electric Authority (PREPA) is the government agency that owns the facilities, sites, and systems identified in this Scope of Work that are eligible as critical services facilities as defined in the PAAP (Section 428) and BBA 2018 guidance documents.

## 3.0 FACILITIES

### 3.1 Facilities Description

The Victoria TC switchyard consists of facilities that operate at nominal voltages of 115 kV, 38 kV and 13.2 kV. It includes:

- Five (5) 115 kV gas circuit breakers (GCB).
- Eight (8) 38 kV circuit breakers:
  - One (1) OCB
  - Seven (7) GCBs

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
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- One (1) 115/38 kV, 60/112 MVA, step down transformer T2 (Year 1973).
- One (1) 115/38 kV, 90/150 MVA, step down transformer T1 (Year 2007).
- One (1) 38/13.2 kV, 12/22.4 MVA, step down transformer for substation 7008 Victoria (Year 1995).

The existing 115 kV switchyard and 38 kV switchyard are in areas identified as High Risk of Flooding in the current Advisory Base Flood Elevations (ABFE) Maps and should be evaluated for flood mitigation. The existing electrical infrastructure of Victoria TC includes many components that are obsolete and difficult to obtain spare parts for.

The proposed project will restore this station to LUMA Energy and industry standards, improving system resiliency and reliability. This Transmission Center has paramount impact on the Puerto Rico transmission network. A catastrophic failure in this substation can rapidly propagate into other parts of the transmission system and result in widespread blackouts. Furthermore, there are transmission lines emanating out of Victoria TC that are considered important interconnections between nearby TCs in the Mayagüez region, including connections to and from other neighboring districts.

### 3.2 Facilities List

Name	Number	Voltage (kV)	GPS Location	Construction Year
Victoria Transmission Center	7008	115, 38, 13.2	[REDACTED]	1973

## 4.0 PROJECT SCOPE OF WORK


### 4.1 Scope of Work Description

This project addresses the need to increase reliability and resiliency while restoring system functionality through the relocation of the Victoria Transmission Center (TC). During hurricane Maria this facility flooded entirely, affecting all the switchgear, control building, and other related components, causing outages and lack of services to the community it serves. The project requirement is to relocate the facility to a greenfield site with new equipment considering LUMA and industry standards and Advisory Based Flood Elevation (ABFE) requirements.

The proposed site ([REDACTED]) for the new substation is located approximately 0.25km to the northeast of the existing transmission center. The design of the new Victoria TC considers, among other things, relocation of transmission lines and feeders to the new site. This project addresses the need to increase the reliability, resiliency, and restore system functionality of the TC.

The initial Scope of Work (ISOW) defines the requirements for the reconstruction of the Victoria Transmission Center:

- 115 kV infrastructure for SCOPE shall constitute a new breaker-and-a-half (BAAH) configuration with rearrangement of services.
  - Add new three-diameters BAAH bus-type configuration switchgear (Nine (9) circuit breakers)

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

- New T2: 115/38 kV, 90/112 MVA transformer, transformer shall match existing transformer impedance.
- Note: Salvage existing 115/38 kV transformer, which was installed in 2007.
- 38 kV infrastructure for SCOPE shall constitute a new eight breakers GIS Double bus with rearrangement of services, one bus tie breakers for a total of nine (9) circuit breakers. Include spare provision for future expansion.
  - Install new 38/13.2 kV, 20/33.6 MVA, step down autotransformer of substation 7008 Victoria TC
- New control enclosure with protection, control, telecommunications, and automation equipment for 13.2kV, 38 kV and 115 kV systems.


This project also enables new software architecture and software solutions (e.g., phasor measurements units (PMU)) in conjunction with the relay replacement scope to reduce event investigation and restoration times.

Proposed New Transmission Infrastructure:

- 115 kV infrastructure for SCOPE
  - 115 kV new breaker-and-a-half bus with nine (9) GCBs with services for:
    - Line 39100 to Mora TC
    - Line 37200 to Añasco TC
    - Existing T1: 115/38 kV, 90/150 MVA transformer
    - New T2: 115/38 kV, 90/112 MVA transformer
    - Capacitor Bank 36 MVAR
    - Spare Position
    - The design and layout drawings shall consider space provision for future plans of switchyard expansion.
- 38 kV infrastructure for SCOPE
  - 38 kV new GIS double bus with one (1) bus coupler and eight (8) circuit breakers with services for:
    - Line 2800 to Aguadilla Sect.
    - Line 2500 to San Sebastian TC
    - Line 5600 to Añasco TC
    - Line 15900 Radial
    - Line 2700 Aguadilla Sect
    - Install a new 38/13.2 kV, 20/33.6 MVA autotransformer for 13.2 kV substation.
    - Provide connection to generation meter and related metering equipment.
    - Existing T1: 115/38 kV, 90/150 MVA transformer
    - New T2: 115/38 kV, 90/112 MVA transformer
      - Design and equipment shall consider future upgrade to 101/134/168 MVA, 115/38 kV transformer.
    - The design and layout drawings shall consider space provision for future plans of switchyard expansion.

Proposed New Distribution Infrastructure:

- Rebuild existing substation 7008 Victoria 13 kV substation.
  - Major equipment requirements:
    - One (1) 38/13.2 kV transformer with a 20/33.6 MVA capacity, Autotransformer

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

- One (1) 13.2 kV main breaker, 2,000 A
- Five (5) 13.2 kV breakers, 1,200 A (4 feeders and 1 spare)
- One (1) 13.2 kV breaker for a mobile substation, 2,000A
- Provide space provision for future 1,200 A breaker.
- Include provisions for connection of station service transformer and metering transformer unit.
- Provide connection for a mobile tie.
- Install power quality meter and related metering equipment.
- Provide current measurement equipment for all phases of each distribution feeder.
- Provide space provision for future 1,200 A breaker.
- Provide space provision for an additional 13.2 kV breaker and for a future second transformer, tie breaker, and associated 13.2 kV switchgear.


#### Protection, Automation, and Control Requirements

The Protection, Automation and Control Requirements have been defined as per LUMA Protection, Control, and Automation Design Criteria Standards and LUMA Substation Automation System (SAS) Conceptual Design Standard for Substation Rebuild Projects. New panels are required for the Substation Automation System and Telecom System.

- Two (2) 125 VDC battery bank with dual charger will be supplied for this substation.

The scope of work shall include:

- For each 115 kV breaker, one bay control unit shall be provided for bay control functions, synchro check and breaker fail protection, and it shall be mounted on a protection panel.
- For each 115 KV line, dual advanced line differential relays shall be provided as dedicated transmission line protections and mounted on a protection panel.
- For each 115 kV / 38 kV transformer, dual transformer differential protection relays shall be provided as transformer differential protections and one dedicated programmable controller as non-electrical protection. Three relays shall be mounted on a stand-alone protection panel.
- For each 115 kV bus, dual bus differential relays shall be designed as redundant bus protections on bus differential panels.
- For each 38 kV circuit breaker of 38 kV lines on Gas Insulated Switchgear, an advanced line differential bay control unit shall be designed. This bay control unit also provides line protections functions. The bay control unit shall be mounted on low voltage compartment of switchgear.
- For each 38 kV transformer circuit breaker, tie breakers and coupler breakers on Gas Insulated Switchgear, a bay control unit shall be designed. This bay control unit also provides backup protections functions. The bay control unit shall be mounted on low voltage compartment of switchgear.
- For each 38 kV / 13.2 kV transformer, one transformer protection relay to provide transformer protection functions and one dedicated programmable controller for transformer as non-electrical protection. Two relays will be mounted on one standalone protection panel. The bay control relay on Gas Insulated Switchgear will provide backup overcurrent protection and bay control function.
- Phase segregated bus differential scheme with breaker failure relays shall be designed for each 38 kV bus. One bus differential panel shall be provided for each double bus section.
- For each 13.2 kV circuit breaker on Gas Insulated Switchgear, a bay control unit shall be designed. This bay control unit also provides feeder overcurrent protections functions. The bay control unit shall be mounted on low voltage compartment of switchgear.
- A power quality meter shall be designed for each 13.2 kV feeder. The power quality meter shall be mounted on Gas Insulated Switchgear low voltage compartment.

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

- Digital Fault Recorder is required for 115 kV lines.
- Dedicated local phasor data concentrator with data storage for advanced sensors (e.g., phasor measurements units (PMU)) system is required.
- IEC 61850 station bus shall be used for protection communication per LUMA standard. Supervisory Control and Data Acquisition (SCADA) design shall follow LUMA design templates.

Telecommunications Requirements

To support the Smart Grid and communication protocols (IEC 61850) for this substation. And, to support initial and future telecommunication equipment, a power generator will be required.

- Space for a minimum of seven (7) telecom cabinets (7ft height x 3ft wide) will be required.
- A substation site generator will be shared for telecommunications backup requirements. Electrical single lines fall under the purview of LUMA to develop and share with architectural and engineering (A&E) for sizing of the site emergency generator.

Note: All telecommunications links used by Protection, Automation and Control (PAC) will be fiber.

Transmission System Operating Characteristics

All fault currents are based on the 2027 Night Peak fault current model. The project must ensure all facilities can operate in the following electrical environment:

Planned Operating Range, 115 kV

- 115 kV, Nominal Voltage
- 109.25 kV, Desired Normal Minimum Voltage
- 120.75 kV, Desired Normal Maximum Voltage

Planned Operating Range, 38 kV

- 38 kV, Nominal Voltage
- 36 kV, Desired Normal Minimum Voltage
- 40 kV, Desired Normal Maximum Voltage

Distribution System Operating Characteristics

The project must ensure all facilities can operate in the following electrical environment:


Planned Operating Range,

- 13.2 kV, Distribution Bus Voltage
- 12.54 kV, Desired Normal Minimum Voltage
- 13.86 kV, Desired Normal Maximum Voltage

The final SOW (plans and specifications) and cost estimated are expected to be completed by **June, 2024** and construction is estimated to be completed by **November, 2026**.

**5.0 TYPE OF PROJECT**

**Choose One (Restoration, Improved or Alternate)**

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

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

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 work designation is considered initial and is based on currently available information. The type of work designation may be revised based on the results of the completed preliminary A&E work.

## 6.0 PRELIMINARY ENGINEERING

**Is architectural and engineering (A&E) funding required to help define the intended scope of work?**

Yes, architectural and engineering funding required to help define the intended scope of work.

## 7.0 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 (BBA) 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) which 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.

## 8.0 COST ESTIMATE

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

Cost estimates for this work are prepared in conformance with class 5 accuracy, which is between -50% and +100% of the final project cost. The estimate includes and is not limited to materials, construction labor and equipment, engineering, management, and contingencies.

<b>Estimated Budget for Architectural &amp; Engineering Design:</b>	\$2,156,505
<b>Estimated Budget for Procurement &amp; Construction:</b>	\$59,290,964
<b>Estimated Overall Budget for the Project:</b>	<b>\$61,447,469</b>

## 9.0 406 HAZARD MITIGATION PROPOSAL

### 9.1 406 Mitigation Opportunity Scope of Work

During the preliminary engineering phase, LUMA will develop and propose 406 Hazard Mitigation proposals consistent with the damages.

### 9.2 406 Mitigation Opportunity Cost Estimate


<b>Estimated Budget for Architectural &amp; Engineering to Design:</b>	Unknown at this time.
<b>Estimated Budget for Procurement &amp; Construction:</b>	Unknown at this time.
<b>Estimated Overall Budget for the Project:</b>	Unknown at this time.

## 10.0 ENVIRONMENTAL & HISTORIC PRESERVATION REQUIREMENTS

EHP considerations will be identified and evaluated during the preliminary design phase and submitted to FEMA for review. Requirements will be incorporated into the final design and construction documents, which must be approved by FEMA prior to construction activities.

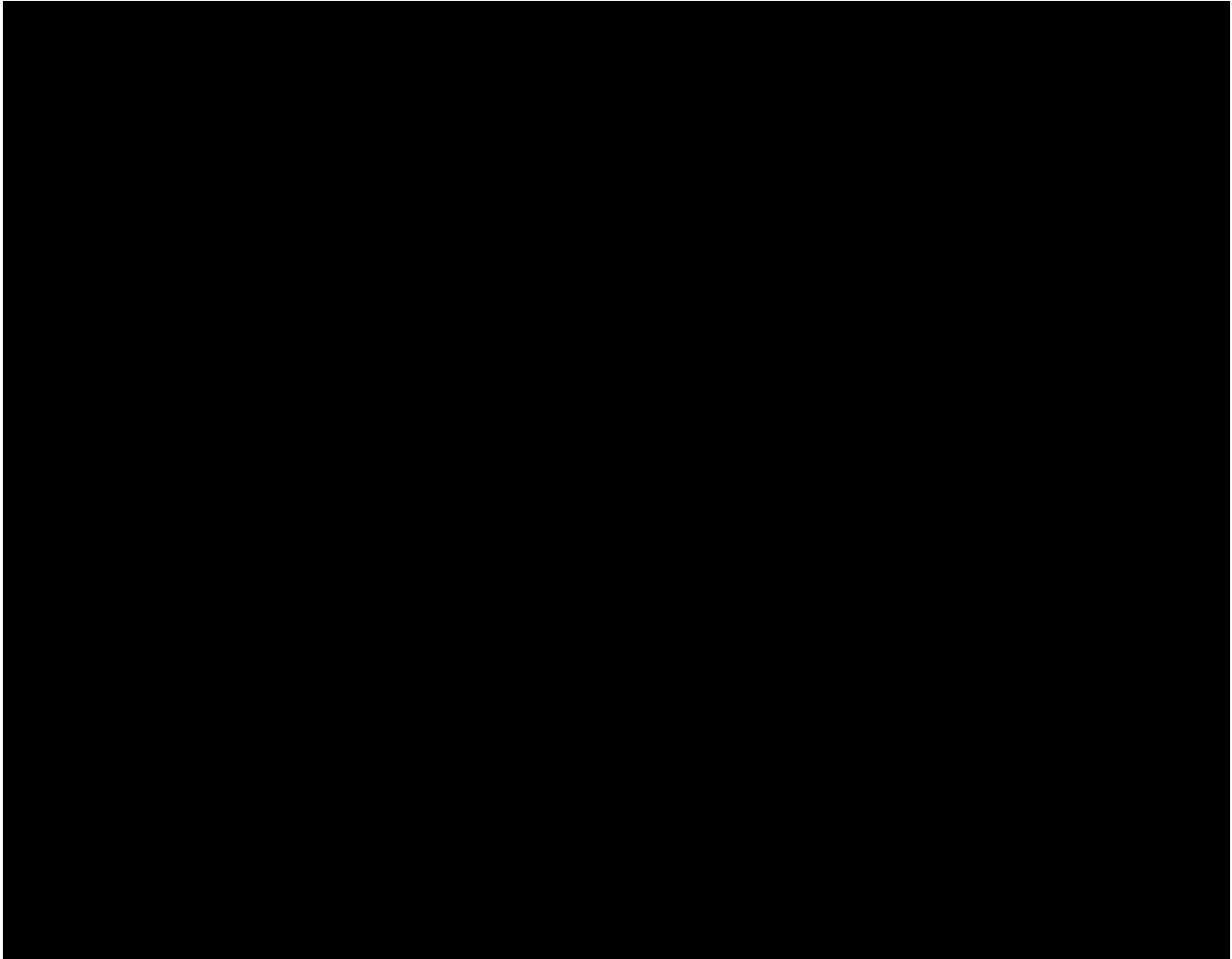
## 11.0 ATTACHMENTS


Document Name	Description
See Below	Existing Single Line Diagram
See Below	Proposed Single Line Diagram

	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

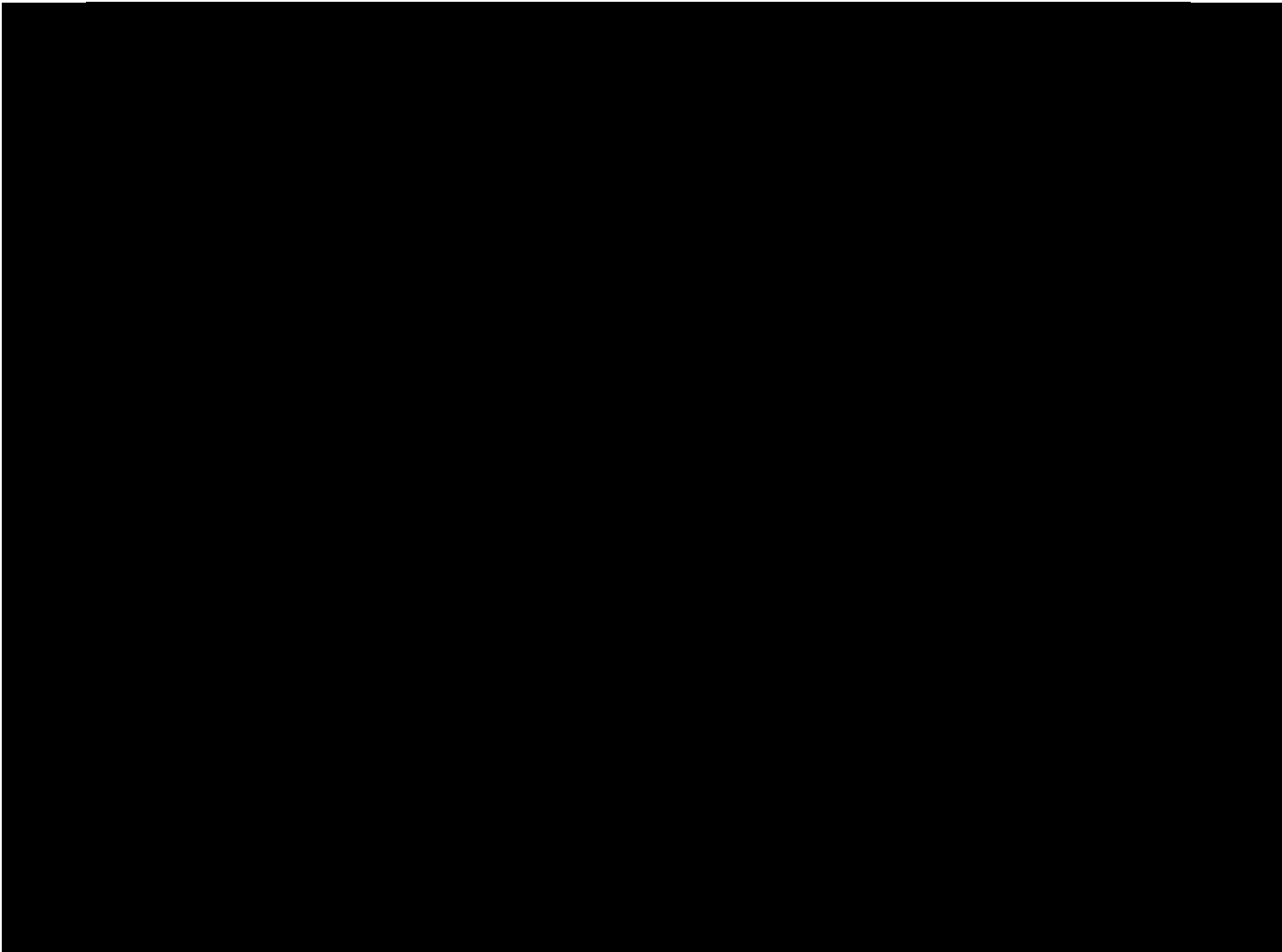
See Below	Aerial View of Existing Site
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**Existing Single Line Diagram**



	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

**Proposed Single Line Diagram**



	<b>Document Title:</b> Victoria TC FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
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**Aerial View of Existing Site**




**END OF DOCUMENT**

Exhibit 4

*Redacted Version (Unredacted Version Submitted under Seal of Confidentiality)*




	<b>Document Title:</b> Arecibo Sectionalizer FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>

## DOCUMENT REVISION HISTORY


This table contains the history of the revisions made to this FEMA Project Scope of Work.

Rev.	Effective Date	Description of Change
0	May 7, 2024	Initial Release
1	June 17, 2024	Facility description updated.

	<b>Document Title:</b> Arecibo Sectionalizer FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
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	<b>Document Title:</b> Arecibo Sectionalizer FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
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## 1.0 OVERVIEW

<b>Project Name:</b>	Arecibo Sectionalizer
<b>Project type:</b>	Restoration to Codes/Standards: Restores the facility(s) to pre-disaster function and to approved.
<b>Region:</b>	Arecibo
<b>Program Brief Owner:</b>	██████████
<b>Project Sponsor:</b>	██████████
<b>Damage Number:</b>	223189
<b>Damaged Inventory / Asset Category:</b>	Island wide Substations
<b>FEMA Project Number:</b>	Provided by FEMA

## 2.0 INTRODUCTION

The purpose of this document is to present and update an Initial Scope of Work (ISOW) with Cost Estimates to be submitted to the Central Office for Recovery, Reconstruction and Resilience for Puerto Rico (COR3) and the Federal Emergency Management Agency (FEMA) for projects under DR-4339-PR Public Assistance. The completed document will be reviewed by COR3 and FEMA to create and version a specific project worksheet and post fixed-cost estimates to repair, restore, or replace eligible facilities including Section 406 hazard mitigation for a specific project.

This document provides a description of the project including an initial scope of work, cost estimates as well as Environmental & Historical Preservation (EHP) relevant information and proposed 406 hazard mitigation work.


LUMA Energy provides the Operation and Maintenance of the Puerto Rico Transmission and Distribution System. The Puerto Rico Power Electric Authority (PREPA) is the government agency that owns the facilities, sites, and systems identified in this Scope of Work that are eligible as critical services facilities as defined in the PAAP (Section 428) and BBA 2018 guidance documents

## 3.0 FACILITIES

### 3.1 Facilities Description

This project improves grid reliability and resiliency while restoring system functionality through the rebuild of the Arecibo Sectionalizer, which houses the Hospital de Distrito 8001, Arecibo Distrito 8015, and the Arecibo Rural 8003 substations. This project also includes the relocation of the Arecibo Pueblo 8002 to the Arecibo Sectionalizer site.

The existing Arecibo Pueblo 8002 substation site (coordinates: 18.471104, -66.71555) is in an area identified as Flood Zone A according to the Puerto Rico Planning Board Flooding Map. The substation will be decommissioned, and the loads transferred to Arecibo Distrito 8015 substation.

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The Arecibo Sectionalizer has existing 38 kV services from transmission lines 13600 to Mirador Azul, 2300 from Dos Bocas, and 2300 from Cambalache Transmission Center. The current facilities operate at nominal voltages of 38 kV, 13.2 kV, and 4.16 kV. The Arecibo Sectionalizer includes:

Hospital Distrito 8001 Substation:

- One (1) 38/4.16 kV, 7.5/11.3 MVA Delta-Wye step down transformer, installed September 1973.
- Four (4) 4.16 kV distribution breakers of 1,200 A each.
- One (1) capacitor bank breaker.

Arecibo Distrito 8015 Substation:

- One (1) 38/13.2 kV, 12/22.4 MVA Wye-Wye step down transformer, installed December 1999.
- Four (4) 13.2 kV distribution breakers of 1,200 A each.

Arecibo Distrito 8003 Substation:

- One (1) 38/7.2 kV, 5/7 MVA Delta-Wye step down transformer.
- One (1) 13.2 kV distribution breakers of 1,200 A each.

Critical loads have been identified in this substation.

### 3.2 Facilities List

Name	Number	Voltage (kV)	GPS Location	Construction Year
Arecibo Sectionalizer	-	38, 13.2 & 4.16	[REDACTED]	1971


## 4.0 PROJECT SCOPE OF WORK

### 4.1 Scope of Work Description

The initial Scope of Work (ISOW) consists of the repair, replacement, and additions of the following infrastructure:

The scope of work for the Arecibo Sectionalizer includes the decommissioning of the Arecibo Pueblo #8002 substation located in a high-risk flood zone area (Flood Zone A), and the transfer of loads to the Arecibo Distrito 8015 substation. The loads will be supplied by three (3) 13.2/4.16 kV 3 MVA step-down transformers. These step-down transformers shall be located at a new site ([REDACTED] that will require land acquisition) approximately 0.66 miles away at the northeast side of the Arecibo Sectionalizer existing site.

Design shall include provisions to tie those step-down transformers, so that in case one step-down transformer fails, the others can supply its load. These step-down transformers are necessary to supply the loads of substation until they can be converted to 13.2 kV.

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Proposed 38 kV Infrastructure at New Site:

- New seven (7) breakers GIS Double bus with rearrangement of services, one bus coupler breaker for a total of eight (8) circuit breakers.
  - Install new 38/13.2 kV, 20/33.6 MVA, step down autotransformer of substation Arecibo Distrito 8015.
  - Install new: 38/13.2-4.16 kV wye-wye transformer, rated at 8.4/11.2/14 MVA at 65°C when energized at 4.16 kV and 13.4/17.9/22.4 MVA at 65°C when energized at 13.2 kV.
  - Reuse: 38/7.2 kV delta-wye, rated at 5/7 MVA
- New control enclosure with protection, control, telecommunications, and automation equipment for 13.2 kV and 38 kV systems.

This project also enables advanced sensors (e.g., phasor measurements units (PMU)) in conjunction with the relay replacement scope to reduce event investigation and restoration times. If additional costs are incurred to enable this technology, it will be pursued under FEMA 406.

Proposed New Transmission Infrastructure:


38 kV Infrastructure to be installed at the Arecibo Sectionalizer:

- New 38 kV GIS double bus with one (1) bus coupler and seven (7) breakers with services for:
  - Line 2100 to Dos Bocas
  - Line 2300 to Cambalache
  - Line 2300 to Dos Bocas
  - Capacitor Bank 11.06 MVAR
  - One (1) 38/13.2-4.16 kV wye-wye transformer.
  - One (1) 38/13.2 kV distribution transformer.
  - Reuse: 38/7.2 kV delta-wye, rated at 5/7 MVA.
  - Design and layout shall provide space provision for future breaker and bus expansion.

Proposed Distribution Infrastructure:

Rebuild distribution substation, Hospital Distrito 8001:

- Major equipment requirements:
  - One (1) 38/13.2-4.16 kV wye-wye transformer, rated at 8.4/11.2/14 MVA at 65°C when energized at 4.16 kV and 13.4/17.9/22.4 MVA at 65°C when energized at 13.2 kV.
  - One (1) 13.2 kV main breaker, 2,000 Amps.
  - One (1) 13.2 kV bus coupler, 2,000 Amps.
  - Six (6) 15 kV feeder breakers, 1,200 Amps (4 feeders, 1 station service transformer and metering transformer unit, 1 spare).
  - One (1) 13.2 kV tie breaker, 2,000A
    - The 13.2 kV bus tie breakers will interconnect the 13.2 kV buses of the sub-8001 Hospital Distrito substation and the sub-8015 Arecibo Distrito substation. It shall operate normally open (N/O) to avoid parallel operation of the transformers and to reduce short circuit levels. It shall be closed only when one of the 38/13.2 kV distribution transformers is out of service.
    - **Note:** Tie Breaker between sub-8001 and sub-8015 needs to be fully disabled until sub-8001 is upgraded to 13.2 kV.
  - Install power quality meters and related metering equipment.

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- Provide current measurements for all phases of each distribution feeder.
- Provide space provision for future breakers.

Rebuild distribution substation, Arecibo Distrito 8015:

- Major equipment requirements:
  - One (1) 38/13.2 kV autotransformer, rated at 20/33.6 MVA.
  - One (1) 13.2 kV main breaker, 2,000 Amps
  - One (1) 13.2 kV bus coupler, 2,000 Amps
  - Seven (7) 15 kV feeder breakers, 1,200 Amps (6 feeders, 1 station service transformer and metering transformer unit)
  - One (1) 13.2 kV breaker for a mobile substation, 2,000A
  - One (1) 13.2 kV tie breaker, 2,000A
    - The 13.2 kV bus tie breakers will interconnect the 13.2 kV buses of the sub-8001 Hospital Distrito substation and the sub-8015 Arecibo Distrito substation. It shall operate normally open (N/O) to avoid parallel operation of the transformers and to reduce short circuit levels. It shall be closed only when one of the 38/13.2 kV distribution transformers is out of service.
    - **Note:** Tie Breaker between sub-8001 and sub-8015 needs to be fully disabled until sub-8001 is upgraded to 13.2 kV.
  - Three (3) 13.2/4.16 kV MVA step-down transformers to supply the loads of the 4.16 kV feeders from substation. These step-down transformers shall be located within the Arecibo Pueblo substation's existing site premises and shall connect to each feeder. Design shall include provisions to tie both step-down transformers, so that in case one step-down transformer fails, the other can supply its load.
    - **Note:** These step-down transformers are necessary to supply the loads of substation until they can be converted to 13.2 kV.
  - Install power quality meters and related metering equipment.
  - Provide current measurements for all phases of each distribution feeder.
  - Provide space provision for future breakers.

Distribution substation, Arecibo Rural 8003:

- Reuse: 38/7.2 kV delta-wye, rated at 5/7 MVA and related switchgear until load are converted to 13.2 kV.

#### Transmission System Operating Characteristics

All fault currents are based on the 2025 Night Peak fault current model. The project must ensure all facilities can operate in the following electrical environment:

Arecibo Sectionalizer


- 38 kV, *Nominal Voltage*
- 36 kV, *Desired Normal Minimum Voltage*
- 40 kV, *Desired Normal Maximum Voltage*

#### Distribution System Operating Characteristics

The project must ensure all facilities can operate in the following electrical environment:

Hospital de Distrito

- 4.16 kV, *Distribution Bus Voltage*
- 3.95 kV, *Desired Normal Minimum Voltage*

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- 4.37 kV, *Desired Normal Maximum Voltage*

Arecibo Distrito

- 13.2 kV, *Distribution Bus Voltage*
- 12.54 kV, *Desired Normal Minimum Voltage*
- 13.86 kV, *Desired Normal Maximum Voltage*

## 5.0 TYPE OF PROJECT

### Choose One (Restoration, Improved or Alternate)

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

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 work designation is considered initial and is based on currently available information. The type of work designation may be revised based on the results of the completed preliminary A&E work.

## 6.0 PRELIMINARY ENGINEERING

**Is architectural and engineering (A&E) funding required to help define the intended scope of work?**


Yes, architectural and engineering funding required to help define the intended scope of work.

## 7.0 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 (BBA) 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) which 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

	<b>Document Title:</b> Arecibo Sectionalizer FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
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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.

## 8.0 COST ESTIMATE

Cost estimates for this work are prepared in conformance with class 5 accuracy, which is between -50% and +100% of the final project cost. The estimate includes and is not limited to materials, construction labor and equipment, engineering, management, and contingencies.

<b>Estimated Budget for Architectural &amp; Engineering Design:</b>	\$4,929,861
<b>Estimated Budget for Procurement &amp; Construction:</b>	\$41,325,819
<b>Estimated Overall Budget for the Project:</b>	<b>\$46,255,680</b>

## 9.0 406 HAZARD MITIGATION PROPOSAL


### 9.1 406 Mitigation Opportunity Scope of Work

During the preliminary engineering phase, LUMA will develop and propose 406 Hazard Mitigation proposals consistent with the damages.

### 9.2 406 Mitigation Opportunity Cost Estimate

<b>Estimated Budget for Architectural &amp; Engineering to Design:</b>	Unknown at this time.
<b>Estimated Budget for Procurement &amp; Construction:</b>	Unknown at this time.
<b>Estimated Overall Budget for the Project:</b>	Unknown at this time.

## 10.0 ENVIRONMENTAL & HISTORIC PRESERVATION REQUIREMENTS

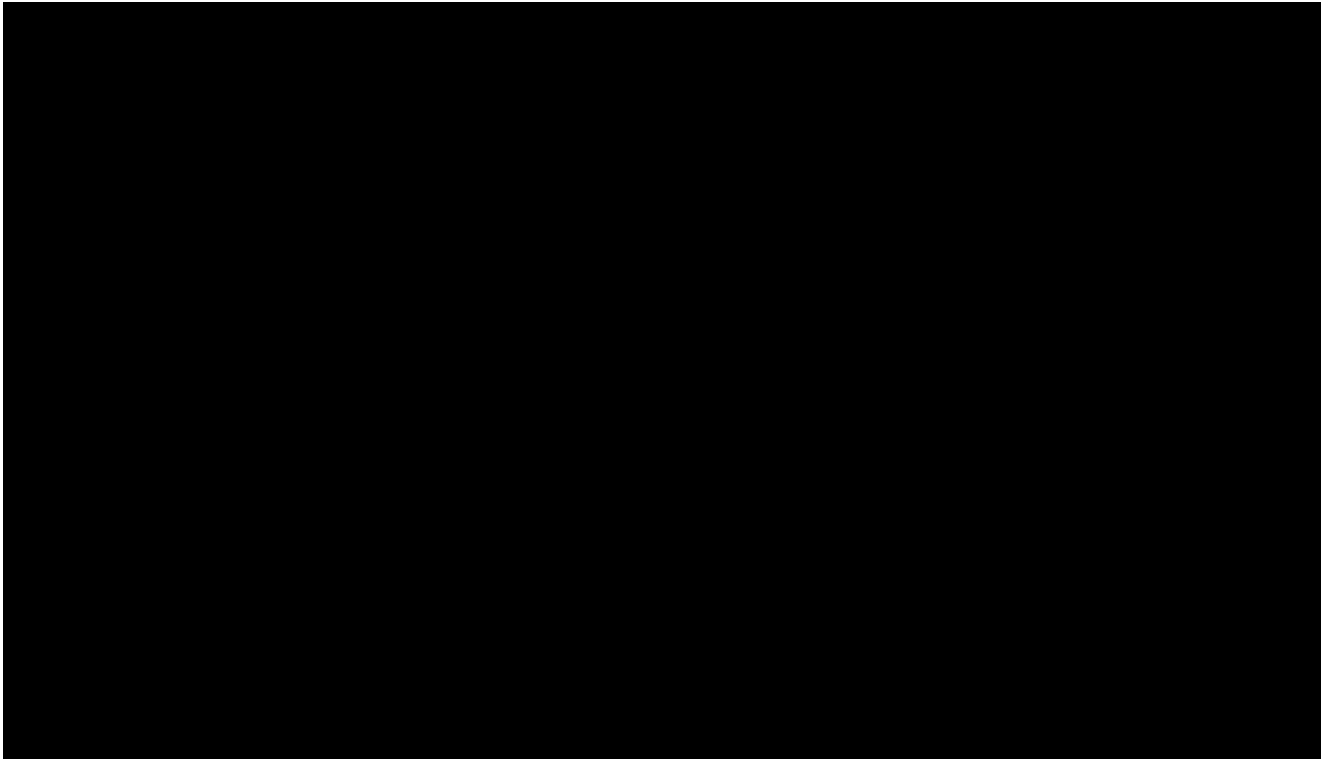
	<b>Document Title:</b> Arecibo Sectionalizer FEMA Project Scope of Work (Initial)	<b>Project ID:</b> Provided by FEMA
		<b>DR-4339-PR Public Assistance</b>


EHP considerations will be identified and evaluated during the preliminary design phase and submitted to FEMA for review. Requirements will be incorporated into the final design and construction documents, which must be approved by FEMA prior to construction activities.

## 11.0 ATTACHMENTS

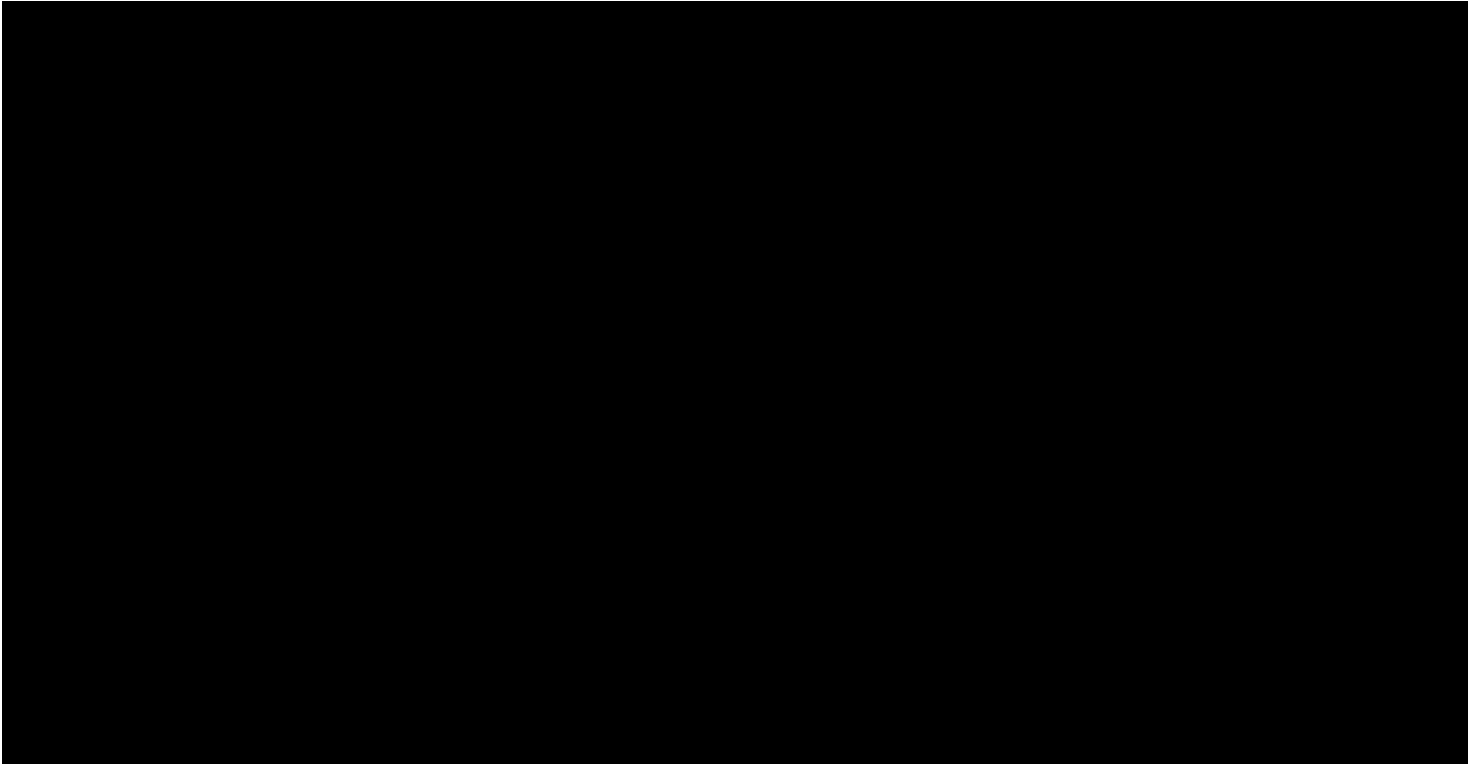
Document Name	Description
See Below	Existing Single Line Diagram (SLD)
See Below	Proposed Single Line Diagram (SLD)
See Below	Aerial View of Arecibo Sectionalizer Site
See Below	Site Locations Relationship

### Existing Single Line Diagram (SLD)




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**Proposed Single Line Diagram (SLD)**



**Aerial View of Arecibo Sectionalized Site**



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	<b>DR-4339-PR Public Assistance</b>	

**Site Location Relationship Map**



**END OF DOCUMENT**

Exhibit 5

Q4-FY24 Federal Funding Project Listing