

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

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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 Amended Scope of
Work and a Request for Confidentiality and
Supporting Memorandum of Law**

**MOTION SUBMITTING AMENDED SCOPE OF WORK AND A REQUEST FOR
CONFIDENTIALITY AND SUPPORTING MEMORANDUM OF LAW**

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC¹, and LUMA Energy ServCo, LLC², (jointly referred to as “LUMA”), through the undersigned legal counsel, respectfully submits the following:

I. Amended Scopes of Work and Request for Confidentiality

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

¹ Register No. 439372.

² Register No. 439373.

2. Consequently, LUMA has submitted to this Energy Bureau several Transmission and Distribution projects (“T&D Projects”) on July 8, 2021 (twenty-eight (28) Scopes of Work and an itemized list of T&D Projects), August 30, 2021 (twenty-nine (29) SOWs and an updated list of T&D Projects) and October 4, 2021 (thirty-eight (38) SOWs and an updated list of T&D Projects), February 2, 2022 (three (3) SOWs and an updated list of T&D Projects), May 20, 2022 (one (1) SOW and an updated list of T&D Projects), July 29, 2022 (four (4) SOWs and an updated list of T&D projects), August 10, 2022 (two (2) SOWs and an updated list of T&D projects), November 11, 2022 (sixty (60) SOWs and an updated list of T&D projects), November 16, 2022 (one (1) SOW and an updated list of T&D Projects), January 30, 2023 (one (1) SOW and an updated list of T&D projects), March 29, 2023 (two (2) SOWs and an updated list of T&D projects), April 24, 2023 (one (1) SOW), April 27, 2023 (three (3) SOWs), August 25, 2023 (one (1) SOW), and November 7, 2023 (one (1) SOW). The Energy Bureau has approved all the T&D Project SOWs submitted by LUMA as of August 25, 2023.

3. On October 4, 2021, LUMA filed a *Motion Submitting Update List of Transmission and Distribution Projects and Thirty-Eight Scopes of Work*. Therein, LUMA submitted thirty-eight (38) SOWs for T&D Projects for its review and approval before submitting them to COR3 and FEMA (“October 4th Motion”). Among the SOWs submitted to this Energy Bureau was the “Monacillo TC” T&D Project.

4. On October 18, 2021, the Energy Bureau entered a Resolution and Order in which it determined that the thirty-eight (38) SOWs for T&D projects submitted by LUMA were necessary to improve the system’s reliability (“October 18th Order”). Therefore, it approved all the projects presented in the October 4th Motion, including the “Monacillo TC” T&D Project SOW.

Further, the Energy Bureau ordered LUMA to seek the Energy Bureau's approval immediately should the scope of the approved project change.

5. Recently, LUMA has determined that to achieve greater levels of T&D System efficiency it would modify some of the T&D Projects SOWs that the Energy Bureau has already approved. These changes have resulted in cost estimates that fall outside of the Class 5 Level. LUMA has revised both projects' scope of work and/or cost estimates and concluded that new work and/or cost estimates are needed. The new T&D SOW was renamed as "550950 - FAASSt [Monacillo TC] (Substations)" T&D Project SOW.

6. In compliance with the October 18th and December 10th Orders, LUMA hereby submits as *Exhibit 1* to this Motion the "550950 - FAASSt [Monacillo TC] (Substations)" T&D Project SOW, which reflects the amendments to the project as explained before.

7. LUMA hereby requests that *Exhibit 1* be maintained confidential and is submitting a redacted version for public disclosure and an unredacted non-public version under seal of confidentiality. LUMA submits its Memorandum of Law below stating the legal basis for which the unredacted version of *Exhibit 1* should be filed under seal of confidentiality. As will be explained below, the SOW in *Exhibit 1*- i.e., "550950 - FAASSt [Monacillo TC] (Substations)" - 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.

8. In addition, the SOW includes personal identifying information of individuals who are LUMA staff or contractors that are 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.

II. Memorandum of Law in Support of Request for Confidentiality

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

9. The bedrock provision on the management of confidential information filed before this Energy Bureau, is Section 6.15 of Act 57-2014, known as the “Puerto Rico Energy Transformation and Relief Act”. It provides, in pertinent part, that: “[i]f any person who is required to submit information to the [Energy Bureau] believes that the information to be submitted has any confidentiality privilege, such person may request the [Energy Bureau] to treat such information as such [...]” 22 LPRA §1054n. If the Energy Bureau determines, after appropriate evaluation, that the information should be protected, “it shall grant such protection in a manner that least affects the public interest, transparency, and the rights of the parties involved in the administrative procedure in which the allegedly confidential document is submitted.” *Id.* §1054n(a).

10. 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).

11. 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.

12. 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.

13. 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).

14. 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.” *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

15. The SOW with CEII included in *Exhibit 1* contains portions of CEII that, under relevant federal law and regulations, are protected from public disclosure. LUMA stresses that the SOW with CEII warrants 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.³ In at least two proceedings on Data Security,⁴ and Physical Security,⁵ this Energy Bureau, *motu proprio*, has conducted proceedings confidentially, thereby recognizing the need to protect CEII from public disclosure.

16. 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

³ *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).

⁴ *In re Review of the Puerto Rico Electric Power Authority Data Security Plan*, NEPR-MI-2020-0017.

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

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.

17. 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.

18. 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.

19. 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.*

20. 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;
- (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

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

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

(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.

Exhibit 1 from disclosure, given the nature and scope of the details included in those portions of the Exhibit.

22. Based on the above, LUMA respectfully submits that the SOW with CEII should be designated as CEII. This designation 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 these SOW 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.

23. In addition, each SOW in *Exhibit 1* contains the name, signature, and role of two individuals who are LUMA employees and a contractor, respectively, 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 D.P.R. 254, 262 (2008); *Bonilla Medina v. P.N.P.*, 140 D.P.R. 294, 310-11 (1996), *Pueblo v. Torres Albertorio*, 115 D.P.R. 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); and Article 3(c) of Act 122-2019 (stating that personnel files

and similar information does not constitute public information subject to disclosure). 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 SOW 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 SOW.

C. Identification of Confidential Information

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

Document	Name	Pages in which Confidential Information is Found, if applicable	Summary of Legal Basis for Confidentiality Protection, if applicable	Date Filed
Exhibit 1	550950 - FAASt [Monacillo TC] (Substations)	Page 1	Right to privacy (<i>see e.g.</i> , Const. ELA, Art. II, Sections 8 and 10)	December 21, 2023
		Page 4	Critical Energy Infrastructure Information, 18 C.F.R. § 388.113; 6 U.S.C. §§ 671-674.	December 21, 2023

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned; **accept** the amended SOWs for T&D Project submitted as *Exhibit 1* to this Motion; **grant** the request for confidential treatment of *Exhibit 1*.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 21st day of December 2023.

I hereby certify that I filed this Motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this Motion to PREPA's General Counsel, Lionel Santa, lionel.santa@prepa.pr.gov, and to Genera PR LLC, through its counsel of record, Jorge Fernández-Reboredo, jfr@sbglaw.com and Alejandro López Rodríguez, alopez@sbglaw.com.



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

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

Exhibit 1

Amended Scope of Work

Redacted Version (Unredacted Version Submitted under Seal of Confidentiality)



FEMA Current Scope of Work Summary

Project Name: 550950 - FAASt [Monacillo TC] (Substations)

Revision:

Date: May 30, 2023

APPROVALS

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

Grant Manager's Name	Signature	Date
[Redacted]	[Redacted]	May 30, 2023
Department VP's Name	Signature	Date
[Redacted]	[Redacted]	May 31, 2023



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Overview

Project Name:	550950 - FAASt [Monacillo TC] (Substations)
Project Type:	to codes/ standards
Region:	San Juan
Damage Number:	921057
Damaged Inventory/Asset Category:	Island Wide Substation
FEMA Project Number: <i>(Formerly Project Worksheet)</i>	550950

Introduction

The purpose of this document is to submit to COR3 and FEMA the detailed Scope of Work (SOW) for the 550950 - FAASt [Monacillo TC] (Substations) repair. This facility was damaged by the strong winds and heavy rainfall during the atmospheric event Maria, a Category 4 hurricane that occurred during the period of Sep 17, 2017, to Nov 15, 2017.

Puerto Rico Electric Power Authority (PREPA) Intend to restore this facility to its pre-disaster design, function and capacity per applicable codes and standards. PREPA is seeking SOW approval from COR3 and FEMA, to receive Public Assistance under DR-4339PR.

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 Operations and Maintenance of the electric service to the entire island of Puerto Rico. Puerto Rico Electric Power Authority (PREPA) is the 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.

This document will be updated with information developed during the initial design and engineering phase through the construction phase.



Facilities

Facilities List:

Name	GPS Coordinates	Voltage (kV)	Construction Year
Monacillo Transmission Center	[REDACTED]	115 kV/38kV	1961

Facilities Description:

The Monacillo TC switchyard consists of facilities that operate at nominal voltages of 115 kV, 38 kV, 13.2 kV and 4.16 kV. It includes:

- Fifteen (15) 115 kV circuit breakers:
 - o One (1) oil circuit breaker (OCB)
 - o Thirteen (13) gas circuit breakers (GCBs)
 - Two (2) 115/38 kV, 60/80/100/112 MVA autotransformers
 - One (1) 115/38 kV 20/26.67 MVA per phase for a total 60/80 MVA three phase transformer
 - One (1) 115/13.2 kV, 24/44.8 MVA, step down transformer for substation 1346 Monacillo TC (out of service)
- Fourteen (14) 38 kV circuit breakers
 - o Three (3) oil circuit breakers (OCBs)
 - o Eleven (11) gas circuit breaker (GCBs)
- One (1) 38/4.16 kV, 7.5/11.3 MVA, step down transformer for substation 1330 Monacillo TC

The existing electrical infrastructure of Monacillo TC includes many components that are obsolete and difficult to obtain spare parts for, especially the oil circuit breakers (OCBs).

The distribution transformer at substation 1330 Monacillo has been in service since 1967, and it supplies small commercial and residential customers in Cupey at a primary distribution voltage of 4.16 kV. LUMA Energy is in the process of upgrading all 4.16 kV substations to 13.2 kV to reduce system losses, improve voltage regulation, provide operational flexibility, increase renewable energy hosting capacity at the feeder level, and increase system security under fault conditions. This substation has experienced corrosion and reliability issues with the existing metalclad. In addition, in June 2021 substation 1346 Monacillo TC suffered a fire that damaged the 44.8 MVA transformer and feeder breakers. To increase overall system reliability, reduce system losses, and replace obsolete equipment, it is recommended to rebuild substation 1330 Monacillo with a dual voltage 38/13.2-4.16 kV transformer and associated 15 kV switchgear, rebuild substation 1346 Monacillo TC with TC and associated 15 kV switchgear, and install a second 115/13.2 kV, 22.4/44.8 MW transformer with associated 15 kV switchgear with provisions for a bus tie with substation 1346. Substation 1330 Monacillo will eventually be converted to 13.2 kV and its loads can be transferred to the two new 13.2 kV substations. Monacillo TC must be refurbished to address the risk and vulnerability it imposes on the system, and to remedy its poor reliability record.



Project Scope

Scope of Work Description:

The proposed project will bring this station to industry standards, improve system resiliency and reliability, mitigate safety hazards, and address environmental concerns.

The work involves replacing damaged circuit breakers and functionally dependent elements. Construct a new transmission and distribution center facility (Monacillo TC) switchyard, as shown in the proposed one-line diagram. Design and arrange all equipment and buildings to avoid possible flood damage and comply with the Advisory Based Flood Elevation (ABFE) Zone A requirements. Following is a high-level list of anticipated items to be replaced or repaired:

The Project requires engineering services for the design of the new facility that shall include the construction of a new distribution substation and the reconstruction of the two existing substations, and new transmission switchgears with new bus-type configurations.

- Replace circuit breakers and disconnect switches as required.
- Replace jumper cables, conduits, and control cables as required.
- Design and install equipment foundations.
- Vegetation removal, earth leveling, restoration of yard gravel.
- Perform a grounding grid system study to verify that the ground grid system's ability to dissipate energy and personnel safety is adequate and secure.
- Repair and replace the grounding grid as required. Repairs shall include theft-deterrent grounding wires and methods.
- Add Spill Prevention, Control, and Counter measure (SPCC) to transformers as required.
- Replace broken perimeter fence and gates.
- Replace external lights of the outdoor structures.
- Replace leaning or broken poles.
- Replace eyewash and shower station.
- Repair or replace Control House Elements as required.

115 kV infrastructure

- Two (2) 115 kV breaker-and-a-half switchyards with thirty (15 + 15) GCBs with services
- New T1: 115/38 kV, 60/80/100/112 MVA transformer
- T2: 115/38 kV, 60/80/100/112 MVA step down transformer (installed in 2008)
- New T3: 115/38 kV, 60/80/100/112 MVA transformer
- New 115/13.2 kV, 24/44.8 MVA at 13.2 kV substation and associated switchgear to replace existing 1346 Monacillo substation.
- New 115/13.2 kV, 24/44.8 MVA at 13.2 kV substation and associated switchgear.
- One (1) spare service for future use.
- Two (2) 115 kV lines to interconnect both switchyards High sides of the 115/13.2 kV transformers shall be connected to different bays and different adjacent buses to increase system reliability under contingencies at either bus.
- The design and layout drawings shall consider space provision for future of switchyard expansion.

38 kV infrastructure

- Two (2) 38 kV breaker-and-a-half switchyards with twenty-seven (15 + 12) GCBs with services.
- Install a new 38/13.2 - 4.16 kV, 8.4/11.2/14 MVA at 4.16 kV and 13.4/17.9/22.4 MVA at 13.2 kV substation and associated switchgear to replace existing 1330 Monacillo substation.
- One (1) spare service for future use.



- The low sides of the 115/38 kV autotransformers shall be connected to different bays and different adjacent buses to increase system reliability under contingencies at either bus.
- The design and layout drawings shall consider space provision for future switchyard expansion.

Distribution Infrastructure

Rebuild existing substation 1330 Monacillo:

- 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) 15 kV main breaker, 2,000 A
- Four (4) 15 kV breakers, 1,200 A (3 feeders, 1 spare) Provide space for a future feeder breaker, 1,200 Amps.
- All circuit breakers will have at least 31.5 kA interrupting the current rating. Include provisions for connection of station service transformer and MTU Provide connection for a mobile tie.
- Install ION meter and related metering equipment.
- Provide for current measurement for all phases of each distribution feeder.

Rebuild existing substation 1346 and new 115/13.2 kV substation.

Major requirements for substation 1346 rebuild:

- One (1) 115/13.2 kV transformer with a 24/44.8 MVA capacity, Delta-Wye (Note: this transformer was purchased after the event of June 2021 to replace the damaged transformer and is currently under manufacture)
- Eleven (11) 15 kV breakers, 2,000 A
- One (1) 15 kV bus tie breaker, 2,000 A. This breaker will interconnect the 13.2 kV buses of the rebuilt 1346 substation and the new 115/13.2 kV 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 115/13.2 kV distribution transformers is out of service.
- Install ION meter and related metering equipment.
- Provide for current measurement for all phases of each distribution feeder.

Major requirements for new 115/13.2 kV substation:

- Complete all required work related to the installation of various forms of concrete foundations such as pads, slabs on grade, containment pits, etc. in an approximate total area of 16,000 m². Typical boreholes will be approximately 4-8" in diameter and up to 25ft in depth. Refer to example below.
- One (1) 115/13.2 kV transformer with a 24/44.8 MVA capacity, Delta-Wye Twelve (12) 15 kV breakers, 2,000 A
- One (1) 15 kV bus tie breaker, 2,000 A. This breaker will interconnect the 13.2 kV buses of the rebuilt 1346 substation and the new 115/13.2 kV 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 115/13.2 kV distribution transformers is out of service.
- Install ION meter and related metering equipment.
- Provide current measurement for all phases of each distribution feeder.

Note: The feeders from existing substation 1346 shall be redistributed between the rebuilt 1346 substation and the new 115/13.2 kV substation.

- Build control enclosure to contain the following:
 - 15 kV Switchgear
 - 210 VAC system
 - 125VDC battery bank system
 - Telecom and SCADA panels
 - Protection, Control, and Automation System



- HVAC and auxiliary systems
- Install a new 33 kW emergency generator. The infrastructure for installing a generator includes a concrete pad, automatic transfer switch, conduits, cables, etc. The components necessary for a fully functional system are the following:
 - New steel structures
 - Telecommunication tower
 - New site development, fence, and grounding system
 - Re-routed distribution and transmission lines, including line routing and design.

Type of Project:

Choose One (Restoration, Improved or Alternate)
If improved, provide the changes in facility size, capacity, dimension, or footprint. If alternate, provide rationale for recommendations.
Restoration to Codes/Standards
This work will be in compliance with 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.

Preliminary Engineering

Is architectural and engineering funding required to help define the intended scope of work?

Yes

Codes and Standards

Which of the following types of codes, specifications, and standards apply to the restoration, replacement, relocation, or alternate scope of work?

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.



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) which 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).

Cost Estimate

Cost estimates to complete the work have been generated at a class 5 level, which is between -50% and +100% of the final project cost. The estimate includes materials, construction labor and equipment, engineering, management, and contingencies.

Estimated Budget for Architectural & Engineering Design:	\$7.22 M
Estimated Budget for Procurement & Construction:	\$98.01 M
Estimated Overall Budget for the Project:	\$105.23 M

406 Hazard Mitigation Proposal

406 Mitigation Opportunity Scope of Work

LUMA will develop 406 Hazard Mitigation proposals during the preliminary engineering phase that are consistent with the damages.

406 Mitigation Opportunity Cost Estimate

Estimated Budget for Architectural & Engineering to Design:	Unknown at this time
Estimated Budget for Procurement:	Unknown at this time
Estimated Budget for Construction:	Unknown at this time
Estimated Overall Budget for the Project:	Unknown at this time

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



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.

Attachments

Document Name	Description
N/A	Project Cost Estimates
N/A	Engineering Studies and Designs
N/A	Location Maps and Site Picture



Document Revision History

This table contains a history of the revisions made to this document

Rev.	Effective Date	Brief Description of Change
0	May 30, 2023	Initial Release