

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

NEPR

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IN RE: PUERTO RICO ELECTRIC
POWER AUTHORITY'S EMERGENCY
RESPONSE PLAN

CASE NO.: NEPR-MI-2019-0006

SUBJECT: Submittal of Annual Report pursuant to
Section 6(m) of Act 83 of May 12, 1941, as Amended

**MOTION SUBMITTING LUMA'S ANNUAL REPORT
UNDER SECTION 6(m) OF ACT 83 OF MAY 12, 1941, AS AMENDED**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

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

1. Pursuant to Section 6(m) of Act 83 of May 2, 1941, as amended ("Act 83")¹, LUMA herein submits to this Honorable Puerto Rico Energy Bureau of the Public Service Regulatory

¹ Section 6 (m) of Act 83 requires the Puerto Rico Electric Power Authority ("PREPA") to submit, no later than May 31 of every year, to the Governor, both Houses of the Legislative Assembly and the Energy Bureau a report:

[...] stating the measures taken during the preceding calendar year to address the emergencies that may arise with respect to the upcoming hurricane season and other atmospheric disturbances, including floods that may affect the electrical system of the Island. Likewise, said report shall present the adopted plans or protocols to be followed in case of fires in facilities and establishments of [PREPA]. It shall also include any preventive measure identified for the conservation of the power lines in the event of an earthquake. The report shall include, but not be limited to, the following information:

- i. Improvements to the [PREPA's] Revised Operating Plan for Emergencies due to Atmospheric Disturbances;
- ii. development of an emergency plan to face a possible earthquake;
- iii. Adopted plans or protocols to be followed in case of fire in [PREPA's] facilities and establishments;
- iv. Status of the tree trimming program in order to protect power transmission lines, while protecting our trees and preventing them from being damaged;
- v. Decision-making protocol to enforce the shutting down of the electrical system;
- vi. Trainings offered to [PREPA's] essential personnel to qualify it on the procedure to be followed in case of emergencies arising from atmospheric disturbances, fire in [PREPA's] facilities or establishments, or earthquakes, as well as a certification attesting that all the personnel performing supervisory functions in the operating areas has been duly advised on the norms of the operating emergency plan in effect; and

Board (“Energy Bureau”), in *Exhibits 1 and 2*, LUMA’s 2026 annual report on emergency response preparedness for the Puerto Rico transmission and distribution system (“T&D System”) (*Exhibits 1 and 2*, the “2026 LUMA Emergency Response Preparedness Report”).

2. In accordance with Section 6(m) of Act 83, the 2026 LUMA Emergency Response Preparedness Report describes the measures taken by LUMA during the preceding calendar year, to address emergencies such as storms, atmospheric disturbances, fires, or earthquakes that could affect the T&D System. The 2026 T&D Emergency Preparedness Report (*Exhibit 1*) summarizes the changes made to LUMA’s Emergency Response Plan (“T&D ERP”) (*Exhibit 2*) to address emergencies, a description of the emergency plan to face possible earthquakes; the plans and protocols to address fires in the T&D System facilities; the status of the T&D System tree trimming program to protect the power transmission lines and trees; the training offered to essential LUMA personnel to ensure they are qualified to follow the procedures to address the aforementioned emergencies; and the contingency plans to normalize or re-establish T&D System operations after severe weather, fire, earthquake, cyber-attack, or other emergencies.

3. As per Section 6 (m) of Act 83, LUMA is also submitting on this date a copy of the 2026 LUMA Emergency Response Preparedness Report to the Governor and both Houses of the Legislative Assembly.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **consider and accept** the 2026 LUMA Emergency Response Preparedness Report included as *Exhibits 1 and 2* herein and submitted pursuant to Section 6(m) of Act 83 of May 12, 1941, as amended.

RESPECTFULLY SUBMITTED.

vii. Contingency plans to address the situation after a storm, a hurricane, a fire in [PREPA’s] facilities or establishments, or an earthquake, directed to normalizing or reestablishing the electrical system as soon as possible.

In Guaynabo, Puerto Rico, this 29th day of May 2026.

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 PREPA via Alexis Rivera, alexis.rivera@prepa.pr.gov, and through its counsel of record, Natalia Zayas Godoy, nzayas@gmlex.net, Richard Cruz Franqui, rcruzfranqui@gmlex.net, and Mirelis Valle Cancel, mvalle@gmlex.net, and counsel for Genera PR LLC, through its counsel Jorge Fernández-Reboredo, jfernandez@ecija.com, Gabriela Castrodad García, gcastrodad@ecija.com, and Ernesto Ramos Maldonado, eramos@ecija.com.



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Exhibit 1

Summary of Annual T&D Emergency Preparedness Report
forming part of the 2026 LUMA Emergency Response Preparedness Report

2026 T&D Emergency Preparedness Report

LUMA Energy

May 29, 2026



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1.0 Introduction

As part of LUMA's commitment to continuous improvement, the Emergency Response Plan (ERP), a living document, is reviewed as necessary. LUMA leaders, along with subject-matter and technical experts responsible for ERP elements, assess its contents to ensure the plan remains current and executable. In keeping with this approach, LUMA submitted the first draft for the 2026 ERP in December 2025 using the May 31, 2025, submission as a baseline.

The changes incorporate feedback from reviewers, as well as insights gained from training exercises and real-world emergency events during this period, closing the gap between planning and execution for emergency response. The ERP is updated based on lessons learned from activations, after-action reports, improvement plans, training and exercise outcomes, feedback from government agencies, and alignment with best practices and industry standards.

LUMA's active participation in industry forums, such as Chartwell's Emergency Management Leadership Council, where we meet monthly with peers in the utility sector to share best practices, identify emerging risks, and strengthen our preparedness strategies, has enhanced our national perspective. This collaboration allows us to stay aligned with national best practices and continuously enhance our emergency preparedness approach. Additionally, LUMA participates in Chartwell's Business Customer Leadership Council, where we have shared how we communicate planned outages to businesses and critical customers, such as hospitals.

LUMA's emergency preparedness framework reflects its ongoing commitment to regulatory compliance, industry best practices, and a culture of readiness that ensures coordinated, effective response and recovery efforts across all levels of the organization. LUMA has undertaken several key initiatives to enhance its ability to prepare for and respond to natural disasters and major emergency events, including:

- LUMA facilitated monthly coordination meetings with interagency coordinators from GeneraPR (Genera), and the Puerto Rico Electric Power Authority (PREPA) to review ERP responsibilities, implementation activities, and decision-making protocols. LUMA subsequently provided quarterly progress and status reports in compliance with the Energy Bureau's Resolution and Orders.
- LUMA continues to refine the Estimated Time of Restoration by working on people, processes, and technology. During the past year, LUMA has focused on damage assessment procedures, starting with identifying internal resources as damage assessors and integrating pre-positioned contracts by engaging vendors prior to the hurricane season. Concurrently, LUMA has continued with the Advanced Meter Infrastructure project.
- LUMA implemented the WebEOC After-Action Review Board for all activations and exercises, which is detailed in the ERP Base Plan under 12.5 After Action Review.
- LUMA continued to strengthen collaboration and engagement with municipalities across Puerto Rico to enhance emergency preparedness, coordination, and response capabilities. During the 2025 municipal engagement meetings, participation increased significantly from 2024, with 59 municipalities represented, including 16 mayors. As part of these engagement sessions, municipal personnel also reviewed Appendix C – Critical Infrastructure.

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- Following these interactions, LUMA met with the San Juan mayor on August 27, 2025, to improve the flow of damage information from the municipality to LUMA. Additionally, LUMA met with the Aibonito mayor on April 23, 2026, to discuss using WebEOC for damage reporting.
- On 21 May 2026, LUMA participated for the first time as a panelist in the “*Segunda Cumbre de Preparación, San Juan 2026*”, hosted by the Municipality of San Juan, where the 78 municipal mayors and OMME (Municipal Emergency Management Office) directors were invited to foster dialogue and collaboration in emergency preparedness and response
- LUMA conducts a monthly review of the Life Preservation Equipment (LPE) customer database to ensure timely notification of upcoming documentation expirations and compliance with applicable renewal and recertification requirements. As part of this proactive outreach, LUMA issues renewal letters approximately 60 days prior to documentation expiration—typically 150 to 200 letters per month—to help beneficiaries maintain uninterrupted eligibility. This process enhances operational readiness ahead of any announced Type 1, 2, or 3 event and supports the direct, timely customer communications outlined in Section 10 (Communications) of the ERP Base Plan.
- The Information Technology department maintains a regular schedule of testing and validation for the company’s contingency communication systems. This includes Very High Frequency testing conducted on April 24, 2026, among Genera, private generation sites, and the LUMA Transmissions Operations Center, ensuring continued reliability and operational readiness across all critical communication channels.
- LUMA added Appendix B to Annex A, Major Outage Restoration, detailing the damage assessment procedures.
- The Call Center established that in the event of an emergency that results in a surge of customer calls, the Customer Experience and Key Account Specialist will activate an internal contingency process. Under this process, the Voice of Customer and Revenue Protection teams will provide additional manpower by assisting with customer calls.
 - To ensure operational continuity, the offices of these supporting teams are equipped to replicate the Contact Center setup. All participating employees have full access to the necessary platforms, such as Genesys, LEX, CC&B, and ArcGIS, to enable efficient communication, visibility, reporting, and response before, during, and after emergencies.
 - The internal contingency process mobilizes approximately 55 to 60 employees to ensure that customer needs are addressed promptly, and service quality is maintained during high-demand periods. If volume warrants additional support, a pre-positioned contract to augment the Call Center workforce was awarded on August 26, 2025, and amended on September 22, 2025. This information is updated in section 10.2.4, Contact Centers, of the Base Plan.
- An alternate LUMA Emergency Operations Center (LEOC) at Palo Seco has been established as a contingency plan. Information Technology shortfalls have been identified and are being addressed, which includes fiber infrastructure, both internal to desktops and external redundant connectivity to both physical and virtual server infrastructure.

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- A tabletop exercise of the Supervisory Control and Data Acquisition (SCADA) contingency plan was first conducted on June 11, 2025, to review data and discuss alternate procedures should the primary system fail. This was followed by a functional exercise on October 13, 2025, to assess and validate the refinements made after the initial tabletop exercises. The SCADA functional exercise included the deployment of substation personnel to the Acacia and Dorado substations to manually capture the data SCADA normally provides.
- LUMA deployed enhancements to the WebEOC platform, implemented a series of drills aimed at training personnel, and obtained end-user approval. Among the LUMA-tailored WebEOC boards, the Safety Event Reporting board (Figure 1) was used for the Hurricane Erin, Type 4 Event response.

Figure 1: Safety Event Reporting Board

- LUMA updated the Multiyear Training Plan to provide a projected schedule and a list of specific training planned for the upcoming three years, comprehensively and specifically including the subject of the training, a description of the training audience, the delivery method, the time frame, and the frequency of the training
- Signed a helicopter rental on September 6, 2025, and an additional damage assessment contract that will allow LUMA to engage additional personnel, equipment, and materials for Type 1, 2, and 3 events to mitigate, repair, or restore the system during emergencies. Concurrently, the company retains access to mutual aid agreements for Type 1 and 2 Events as cooperative support, should additional resources beyond the pre-positioned contracts be needed to support our response and restoration efforts, including the agreements with Edison Electric Institute (EEI) and the American Public Power Association of PREPA. LUMA leveraged the Chartwell PowerUp Conference to engage EEI representatives and discuss their participation in the mock drill in February 2026. EEI participated in a Microsoft Teams session with the Incident Commander during February 27, 2026, Mock Drill.

As part of our emergency preparedness efforts, LUMA, acting as an agent of PREPA, is responsible for preparing the annual Emergency Preparedness Report for the Transmission and Distribution (T&D) System in accordance with Section 6(m) of Act 83 of May 12, 1941, as amended (Act 83). Act 83 requires that this report be submitted to the Governor, the PREB, and both Houses of the Legislative Assembly no later than May 31 of each year. This document, together with the LUMA Emergency Response Plan dated

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May 30, 2026, constitutes LUMA's 2026 Emergency Response Preparedness Report and fulfills the requirements established under Section 6(m) of Act 83.

The ERP establishes the organizational structure, processes, and protocols for the preparedness, response, and management of major electric outages, emergencies, and other incidents that may disrupt the operations and services of the T&D system. These incidents include, but are not limited to, hurricanes, storms, atmospheric disturbances, flooding, earthquakes, and fires. The ERP is comprised of a Base Plan that outlines the overarching framework, protocols, and procedures applicable to all hazards. This Base Plan is supported by a series of specialized annexes that address specific emergency scenarios, including: Major Outage Restoration (Annex A), Fires (Annex B), Earthquakes (Annex C), Severe Weather (Annex D), Cybersecurity and Terrorism (Annex E), Activation Guide (Annex F), Communication Guidelines (Annex G), and Preparedness Training (Annex H).

The subject areas required by Section 6(m) of Act 83 are identified and discussed in detail in this document or the attached ERP, as indicated below.

2.0 Revisions to the ERP

To fulfill its commitment to operational excellence and continuous regulatory compliance under Act 83, LUMA regularly updates the ERP to reflect evolving industry best practices and organizational improvements. Following recent functional exercises, tabletop simulations, and strategic stakeholder engagements conducted during 2025 and 2026, LUMA integrated several key modifications into the plan. These updates ensure the alignment of internal resources, streamline technical terminology, and optimize interagency communication protocols during major emergency events. In addition to the specific items addressed above, LUMA implemented the following comprehensive revisions:

- Updated Base Plan, Appendix B – Assignment of Responsibility to reflect current assignments and roles for the LEOC and added the Regional Operations Command Centers (ROCCs)
- Updated the Crisis Management Committee (CMC) Structure under Appendix A (LUMA ICS Principles)
- Reformatted and redesigned Base Plan Appendix C into a new layout for improved readability and consistency
- Updated Base Plan Section 6.2.3, Forecasted Potential Incidents and Scheduled Events (Appendix B), reflecting terminology adjustments by the Finance Section Chief from “Finance and Administration” to “Finance” only for clarity and alignment with the current organizational structure
- Updated Annex A, Section 4.2.7, to include an expanded definition of Damage Assessment to ensure consistency and better alignment with the Damage Assessment content and procedures
- Updated Annex A, Appendix A data fields of the Major Outage Event (MOE) metrics adjusted to ensure alignment with the MOE tracker system
- Updated Base Plan, Section 10.2.2 – Critical Customers, to include new information describing the Critical Customers Board within WebEOC and provide additional context on how critical customers are tracked and managed within WebEOC

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- Deleted the Municipal Coordination Unit Leader position from Appendix B, Assignment of Responsibilities, to transfer and reflect municipal communication protocol under the Key Account Team Lead position
- Established the System Operation Control Center as an extension of the T&D Operations Branch Director position in the LEOC to ensure real-time coordination, efficient decision-making, and seamless communication across operational teams

3.0 Emergency Preparedness and Training

LUMA's preparedness extends beyond plans; it is a core part of its culture. Emergency response responsibilities are integrated into every employee's role, with key positions staffed in depth to ensure continuity during sustained operations. From the LEOC to the seven ROCCs and subordinate System Emergency Restoration Teams (SERTs), this readiness reflects LUMA's strong commitment to safeguarding Puerto Rico's electric grid and restoring service safely and efficiently in any emergency.

LUMA continues to strengthen its capabilities through ongoing ERP updates and implementations, maintains operational readiness at the LEOC, and advances contingency planning for business continuity. The organization has also prioritized developing comprehensive plans, processes, procedures, and resources to support all phases of emergency management—before, during, and after an event. These efforts position LUMA to deliver a timely and effective response, ensuring service restoration aligns with the Major Outage Restoration – Annex A of the ERP.

The ERP is designed to develop and improve the knowledge and skills of personnel assigned to emergency response activities and to support the safe and reasonably prompt completion of all required actions during ERP activations. It includes an exercise program that follows the guidelines of the Homeland Security Exercise Evaluation Program, as well as operations-based exercises (including drills and functional exercises) to validate and/or evaluate plans, policies, and procedures, among other things. All LUMA personnel performing key functions in the LEOC have been duly advised and trained in emergency operations.

Since July 2025, LUMA has carried out a range of emergency preparedness and readiness activities and training initiatives across the organization to ensure that our personnel, facilities, and operations are equipped to respond to natural disasters and other emergencies. Fortunately, there have been limited, lower-impact atmospheric events affecting operations during this period, allowing the organization to remain focused on strengthening capabilities ahead of the upcoming hurricane season and other potential disturbances, including floods that may affect the island. These efforts include, but are not limited to:

Employee Training and Emergency Response Activities

- **Responding to Tropical Storm Erin** – On August 14, 2025, LUMA activated its Incident Command structure, the LEOC, for a Type 4 Event with the potential of turning into a Type 3 or 2 event, and conducted the response according to the ERP to actively coordinate the restoration of service and keep LUMA customers informed of the restoration progress
- **Facilitating Forty WebEOC Training Sessions** – As of March 30, 2026, 88.5% of employees within the LUMA Emergency Roster completed basic emergency management training. LUMA delivered

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these training sessions in person, offering options in English or Spanish to strengthen operational readiness and system proficiency across response teams. In addition, LUMA implemented a separate Train-the-Trainer program to develop internal instructors who supported and reinforced training delivery across the island. These trained personnel assisted with facilitating sessions at various locations across the island, helping to expand reach, improve accessibility for ROCC and SERT employees, and ensure consistent knowledge transfer while reducing logistical challenges. Every training concluded with a knowledge assessment to certify understanding

- **Conducting Fourteen Hybrid Training Sessions for the WebEOC Logistic Service Request Board** – LUMA delivered training sessions both in person and through a virtual platform, ensuring broad accessibility for 242 participants across the organization. This initiative provided instructions on the proper use and management of the board for submitting and tracking logistics service requests, with a focus on accurate WebEOC board utilization
- **Implementing a Series of Functional Exercises** – These exercises aimed at training personnel and enhancing the use of the WebEOC emergency management platform. They included three functional exercises with LUMA's ROCCs and selected subordinate SERTs designed to reinforce understanding of the Logistics Service Request Board and its operational application. The exercises focused on translating training concepts into real-world operational use with scenarios, allowing participants to submit, manage, and track service requests in a controlled environment. These functional exercises strengthened user proficiency, validated workflow processes, and improved overall readiness for efficient coordination during emergency and operational scenarios
- **Conducting the Emergency Mock Drill** – LUMA conducted the Emergency Mock Drill with external emergency response partners, and for the first time with three external evaluators, on February 27, 2026. This exercise complied with the OMA, Annex I, *Scope of Services*, pages I-11 and I-12, paragraph VII, *Emergency Response* B.9, which specifies that the Operator shall conduct at least one system-wide test of the *Emergency Response Plan* processes, procedures, technical and communications equipment, and personnel readiness per year, occurring three months prior to the commencement of the Atlantic Hurricane Season. This exercise replicated a Category 5 hurricane with a planned direct hit to Puerto Rico and included the following participating and observing entities:
 - Puerto Rico Energy Bureau
 - Puerto Rico Police Department
 - Public-Private Partnerships Authority
 - Department of Economic Development and Commerce (ESF-12 Lead)
 - Department of Public Safety
 - Puerto Rico Department of Health
 - U.S. Department of Energy
 - Puerto Rico Emergency Management Bureau
 - Central Office for Recovery, Reconstruction, and Resiliency
 - Puerto Rico Electric Power Authority
 - Genera
 - Financial Oversight and Management Board for Puerto Rico

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- National Weather Services
- United States Army Corps of Engineers
- Municipality of San Juan
- **Conducting Meetings and Tabletop Exercises** – LUMA conducted these meetings **with ICS LEOC Command and General Staff to address After-Action Report findings and areas for improvement regarding damage assessments.** Key personnel from the Capital Programs and Operations department, who spearheaded the newly created Appendix B to Annex A (Major Outage Restoration) detailing damage assessment procedures, met to review the people, process, and technology in preparation for the Mock Drill
- **Developing and Delivering the Safety Event Report Board Training via Workday** – LUMA provided this structured training for Safety Officers and Safety Assistants assigned to the LEOC and ROCCs within the LUMA Emergency Roster. This initiative focused on strengthening users' ability to accurately document, track, and manage safety events within the WebEOC LUMA-tailored standard board, ensuring consistency, clarity, and compliance with established protocols. The digital format included a review of the basic WebEOC functions to ensure compliance
- **Completing FEMA Training** –FEMA training was suspended until April 15, 2026, due to a lapse in federal funding. As of March 30, 2026, the Incident Command System (ICS) training completion, based on LUMA Policy and Procedure Emergency Preparedness Trainings dated November 1, 2025, is 36,381 hours
- **Continuing the Emergency Preparedness 365 Campaign** – This initiative promotes year-round emergency preparedness across all levels of the LUMA organization
- **Updating the Multiyear Training Plan** – LUMA updated this plan to provide a projected schedule and a list of specific training sessions planned for the upcoming three years, comprehensively and specifically detailing the subject, description, audience, delivery method, time frame, and frequency of the training

Technology Enhancements

- **Implementing the Energy Management System** – On April 8, 2026, LUMA deployed this system as part of its efforts to strengthen the reliability and modernization of Puerto Rico's electric system. This system represents a significant improvement in the tools LUMA's system operators use to monitor and manage the electric grid in real time with greater efficiency, enabling quicker response to events and better integration of modern technologies for the benefit of LUMA customers
- **Continuing Meetings with the Puerto Rico Emergency Management Bureau** – LUMA continues to hold these meetings regarding the use of the WebEOC software to further strengthen the exchange of information during emergencies, which will result in more effective coordination and faster recovery. Additionally, the platform assists in maintaining operational awareness of the work performed in the field, resulting in greater efficiency for the utilization and dispatch of available resources
- **Continued Improvements to the Crisis Track Platform** – LUMA continues to enhance this software platform, which enables real-time, standardized damage assessment and reporting through mobile and web-based tools. Its utilization supports the development of consistent protocols by aligning field

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data collection with FEMA categories and public assistance requirements. LUMA continues to work with the vendor and LUMA subject matter experts across the substation, transmission, distribution, telecommunications, and underground systems to customize templates that adapt to LUMA's damage assessment needs

Collaboration and Stakeholder Engagement

- **Verifying the Continuity of Memoranda of Understanding** – LUMA verified the continuity of three Memoranda of Understanding for the evacuation of employees and equipment from flood-prone areas during an emergency in Ponce (Estadio Francisco “Paquito” Montaner), Arecibo (Universidad de Puerto Rico, Recinto de Arecibo), and San Juan (Coliseo de Puerto Rico for helicopters)
- **Continuing the Partnership with the Department of Economic Development and Commerce** – LUMA continues its partnership with this governmental agency to leverage the agency's Critical Infrastructure Database, which remains under review
- **Maintaining Regular Outreach to Hospitals and Critical Facilities** – LUMA maintains regular outreach to hospitals and critical facilities, contacting lifeline customers directly and proactively during emergencies as stated in the *ERP Base Plan* Section 10.2.2 and *Annex G* Section 4.3.2. LUMA conducts this outreach to develop relationships and maintain updated data on auxiliary power and emergency generators
- **Promoting Awareness of the LPE Program** – LUMA continuously promotes the LPE Program to ensure eligible customers understand the available benefits and the enrollment process. The LPE enrollment process established by law requires customers to be the account holder associated with the residence, supported by documentation including a certification from the Department of the Family and a medical certification from the Department of Health specifying the required medical equipment and hours of use
 - LUMA Customer Experience personnel have supported community service fairs organized by members of the Legislative Branch for more than a year, engaging directly with hundreds of customers, including elderly populations, to provide orientations regarding the LPE Program and its benefits. Additionally, LUMA has incorporated informational materials, presentation slides, and QR code into partner meetings and outreach activities to facilitate client registration through cellular phones, regardless of the meeting topic
 - LUMA's Communications and Stakeholders Engagement Department is developing new physical material, such as brochures, to be available in the Regional Customer Service Offices so customers remain proactively informed
- **Securing Pre-Positioned Contracts** – LUMA secured pre-positioned contracts to ensure appropriate resources remain available to enhance response efforts during Type 1, 2, and 3 Events as described in the ERP. These contracts provide additional personnel, equipment, and materials to conduct damage assessments, restore services, repair or replace T&D assets, manage fuel distribution, and perform vegetation maintenance. Contractors include on-Island and off-island vendors, as well as existing contractual resources that incorporate an emergency response clause
- **Retaining Mutual Aid Partners** – LUMA retains strategic mutual aid agreements with organizations such as the EEI and the American Public Power Association of PREPA. These partnerships secure additional operational resources beyond pre-positioned contracts if emergency response and restoration efforts require them

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LUMA maintains a strategic inventory of essential equipment and materials to ensure immediate operational readiness, support effective response efforts during major weather events, and mitigate extended service outages. The current emergency preparedness inventory includes the following assets:

- **Over 15,000** distribution poles
- **Over 9,900** transmission structures
- **Over 14,400,000** feet of wire and cable
- **Over 5,800** pole-mounted transformers
- **23** distribution breakers
- **75** transmission breakers
- **Four** power transformers with additional units staged for active projects
- **Six** battery banks and chargers
- **Over 6,200,000** T&D hardware components
- **Over 200,000** additional critical inventory items

4.0 Hazards Response

In addition to the provisions of the Base Plan, the attached ERP includes the following: (i) a Fire Response Annex (Annex B), (ii) an Earthquake Response Annex (Annex C), (iii) a Severe Weather Response Annex (Annex D), and (iv) a Cybersecurity and Terrorism Annex (Annex E), each describing key functions and a comprehensive operational and tactical framework that LUMA implements in response to the type of hazard affecting the T&D System.

5.0 System Operations in an Emergency

From a System Operations perspective, several key readiness activities were completed, including the already mentioned SCADA and Very High Frequency functional exercises, as well as an Energy Management System operational test performed from the alternate location in Santurce Complex on May 4, 2026.

Additionally, LUMA is evaluating an OMS capability upgrade that enables the segregation of customers without service and events prior to a MOE, providing more accurate status during the Restoration Stage.

LUMA's Outage Management System (OMS) underwent two additional stress tests conducted by the vendor, Hexagon, in accordance with previously defined specifications and vendor recommendations. For both exercises, the vendor used a structured testing approach in which a list of feeder breakers was provided to identify associated transformers and customers, enabling the development of test scripts that simulate real operational conditions.

The primary objective of these tests was to evaluate OMS performance under high volumes of simulated activity using the MQConnector, which replicates incoming calls from LEX or IVR systems, and the SCADA simulator, which generates feeder outage events. The vendor's scripts also measured system

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processing times for both customer calls and emergency event tickets. LUMA injected messages in batches of 300, with a 10-second pause between each batch.

August 26, 2025, Test:

The system processed a load consisting of 9,400 calls, 4,150 emergency events, and 122 feeder outages. Customer calls were processed in 43.84 minutes, while emergency tickets were processed in 32.69 minutes. The total processing time, including pauses between batches, was approximately 49 minutes. Throughout the test, user experience remained stable, with Central Processing unit utilization maintained below 60% and memory utilization below 70%. LUMA observed no system degradation, and the OMS remained fully operational. The results indicated that system performance was stable and could be extrapolated to longer-duration scenarios. The User Acceptance Testing environment used the same number of Batch Call and MQConnector instances as production-like configurations, and LUMA confirmed that the test scripts are reusable for future scalability testing.

April 6, 2026, Test:

LUMA executed a subsequent stress test with an increased load of 10,093 calls, 5,038 emergency events, and 122 feeder outages. Customer call processing time improved to 33.4 minutes, while emergency ticket processing time was 32.20 minutes. LUMA reported the total processing duration, including batch pauses, at approximately 4 minutes. During this test, system performance remained stable, with significantly improved resource efficiency: Central Processing Unit utilization remained below 30%, and memory utilization below 30%. LUMA observed no degradation in service, and the OMS remained fully operational throughout the test. As in prior evaluations, the User Acceptance Testing environment mirrored production-like configurations with equivalent Batch Call and MQ processing instances.

Across both tests, the OMS demonstrated consistent stability and resilience under sustained high-volume event conditions. In both scenarios, the system maintained operational integrity, stable user experience, and efficient resource utilization, confirming its ability to support large-scale outage and customer impact simulations without performance degradation.

6.0 Vegetation Management

The Vegetation Management and Capital Clearing Program includes initiatives to abate or mitigate immediate vegetation risk at the most critical locations and an ongoing program to clear and re-establish rights-of-way (ROWs) to standard widths. This program provides immediate response for the highest risk sites—specifically those that pose hazards to public safety or routinely experience tree-caused service interruptions—while reclaiming ROW corridors, especially those impacting the T&D system.

LUMA continues to use specialized equipment, including skid-steer mulchers, small and medium-sized forest mulchers, and mini-giraffe saws on ROWs. Utilizing this advanced equipment to complete work has resulted in more effective and efficient vegetation management practices than those historically implemented in Puerto Rico. This technology alleviated physically demanding work and, as a result, improved safety. LUMA deployed these units to conduct maintenance vegetation work on distribution and transmission lines in multiple regions across the island.

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From July 1, 2025, to March 31, 2026, LUMA's vegetation management activities included responding to urgent outages, customer requests, and public safety requests. By third quarter (Q3) of fiscal year 2026 (FY2026), LUMA had cleared or trimmed a total of 1,490 miles as part of its daily vegetation management operations.

7.0 T&D System Rebuild and Resiliency

The 2026 Atlantic Hurricane Season begins on June 1. Since the start of FY2026, LUMA has made significant progress in repairing and stabilizing the utility grid, increasing the reliability and resiliency of the T&D system to better withstand impacts from natural disasters. LUMA's grid repair activities from Q1 to Q3 FY2026 included:

- Completing the replacement and energization of six priority substation projects from Phase 1 of the Priority Stabilization Plan in the Bayamón Transmission Center, Fajardo Pueblo, Caguas, and three projects in the Monacillos Transmission Center
- Completing the hardening and energizing of eight transmission lines (TL4500, TL38200, TL16500, TL2100, TL9100, TL12600, TL13600, and 4500 Cañas TC – La Rambla Sect), as part of the transmission line hardening projects included in the PSP
- Installing over 730 distribution automation devices
- Replacing more than 10,410 broken and damaged distribution utility poles
- Replacing or repairing over 8,900 streetlights

LUMA documents its progress in detail at <https://progresodelumapr.com/nuestro-progreso/>. Driven by this commitment to making real and measurable progress in its efforts to modernize and transform Puerto Rico's energy grid, the company views emergency preparedness as a key pillar of the reliable, resilient, customer-focused, and cleaner energy future it builds every day for its 1.5 million customers across Puerto Rico.

Exhibit 2

T&D ERP forming part of 2026 LUMA Emergency Response Preparedness Report

Emergency Response Plan

Base Plan

LUMA Energy

NEPR-MI-2019-0006

May 29, 2026





Letter of Promulgation

As the President and CEO of LUMA Energy (LUMA), I hereby authorize the LUMA All-Hazards Emergency Response Plan (ERP or Plan). This Plan provides for LUMA's response, immediate recovery, and restoration of operations to emergency events efficiently and effectively to protect lives, public health, safety, and property; to restore essential services; and to enable and support economic recovery. Threats to the continuity of service to our customers are constantly evolving. LUMA stands prepared to respond to and recover from any threat or hazard.

The ERP has been developed to ensure the safety and reliability of our electric grid during unforeseen events or emergencies. As an electric utility company, we understand the critical importance of a reliable and resilient power supply to our customers. Our ERP aims to provide a coordinated and efficient response to emergencies that may affect service delivery to our customers. The plan has been developed to respond to emergencies, including natural disasters such as hurricanes, earthquakes, and severe weather, as well as man-made incidents such as cyberattacks and physical security threats.

The ERP outlines clear roles and responsibilities for all employees, stakeholders, and partners involved in the response efforts, and it provides procedures for assessing and responding to emergencies. We have established communication channels to engage quickly and effectively with our customers, emergency response agencies, and other stakeholders during an emergency. We have also implemented a comprehensive training and knowledge assessment program to ensure our employees are fully prepared to respond to any potential emergency. Our team is well-equipped with the resources and tools to ensure the safety and reliability of our electric grid.

As we move forward, we will continue to review and improve our ERP to ensure that it remains effective and up to date with the latest best practices and technologies. We are committed to providing safe and reliable electricity for Puerto Rico, and our ERP is a critical component of this commitment.

Janisse Quiñones
President & CEO
LUMA Energy

Emergency Response Plan

Base Plan

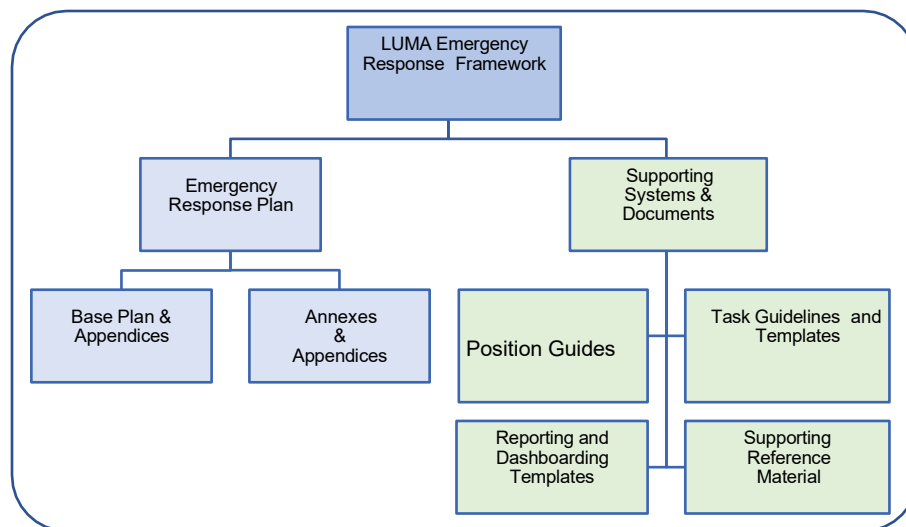
Executive Summary

The LUMA All-Hazards Emergency Response Plan (ERP) reflects organizational doctrine and policy. It supersedes all previous plans and integrates with all LUMA organizational units. The ERP addresses electric utility emergency response to any disaster and addresses customer outages due to natural causes (e.g., thunderstorms, hurricanes, tornadoes, storm surges, earthquakes, tsunamis, floods, etc.), human causes (e.g., major equipment failure, civil unrest, terrorism, wildfire, cyber-attacks, etc.), and technological causes (e.g., nuclear radiation, dam failures, transportation accidents, etc.), resulting in significant customer service interruptions. The ERP is based on knowing and understanding the magnitude of the event. The Major Outage Restoration Annex (Annex A) included in this plan outlines the sequence of energy restoration revolving around key infrastructure that supports the protection of life and property.

Emergency Response Plan Descriptions

The ERP is a foundational document that provides the mission and concept of operations for responding to, recovering from, and mitigating against both man-made and natural disasters through planning, training, and exercises related to the electric utility services and assets operated by LUMA throughout Puerto Rico. It describes LUMA's approach to incident operations and the coordination structure(s) that implement them. It also includes stabilization and restoration end states as defined by Community Lifelines. The primary objective of Community Lifelines is to ensure the delivery of critical services that alleviate immediate threats to life and property when disasters impact communities. In addition, the ERP provides an incident management structure to coordinate and deploy the essential resources for LUMA's response (*see Figure 1*).

Figure 1: LUMA Emergency Response Framework



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The Annexes and Appendices to the ERP provide LUMA-specific operations and guidance on how the response and recovery concept of operations, tasks, and responsibilities are achieved. Standard operating guides and checklists facilitate the use of these documents. Annex A details how the organization responds during an emergency, prioritization system and the power restoration strategy, among others.

Through exercise and training, LUMA staff gain awareness of the LUMA Emergency Response Framework, enabling LUMA to achieve incident objectives and achieve successful outcomes for each response.

Senior Leader's Intent

LUMA's ERP establishes a simple detailed structure for managing and responding to emergency events affecting Puerto Rico's Transmission and Distribution System (T&D System). It provides the structure and mechanism for the coordination of coordinating power restoration throughout Puerto Rico.

This ERP adopts guidance from Federal documents such as the National Response Framework (NRF) and Comprehensive Preparedness Guide (CPG) 101. It promotes a common understanding of risk-informed planning and decision-making. Furthermore, it assists planners in examining a threat and developing integrated, coordinated, and synchronized plans, while pursuing the assigned functional responsibilities to ensure effective and efficient incident management.

Vision for Emergency Response

LUMA developed and maintains a comprehensive set of plans to prepare for, respond to, and recover from any major outage, and to inform customers, stakeholders, and the public about all types of business interruption incidents that may occur.

Corporate Preparedness Strategy

LUMA's approach to emergency management reinforces our commitment to our customers and the communities we serve. LUMA utilizes effective emergency management principles and protocols that enhance our ability to provide safe and reliable energy services. LUMA delivers on its commitments to its customers by:

- Conducting risk assessments.
- Developing appropriate prevention or risk mitigation strategies.
- Implementing comprehensive emergency preparedness programs.
- Communicating timely and accurate information to customers and other stakeholders.
- Responding with appropriate resources to address the emergency.
- Recovering from emergencies expeditiously.
- Continuously improving.

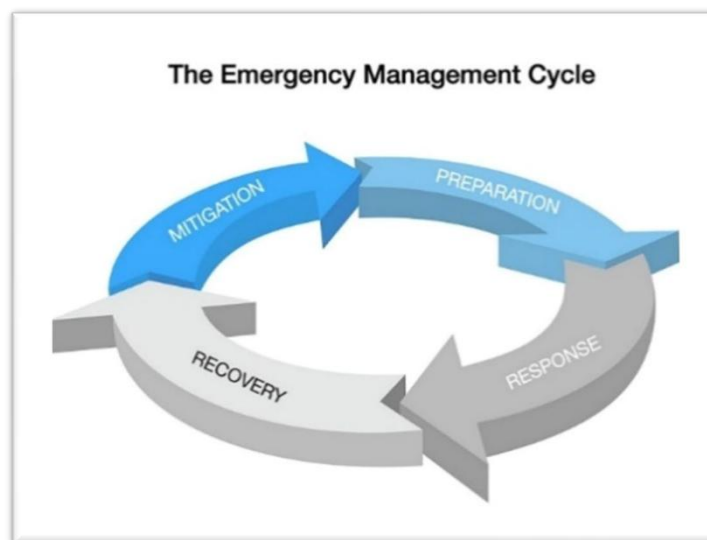
Emergency Response Plan

Base Plan

A Living Document

This ERP is published annually and revised as necessary. All LUMA leaders and subject matter/technical experts responsible for this ERP are required to review its contents and update the information to keep the Plan relevant. As shown in Figure 2, the ERP is a living document, and LUMA makes revisions deemed necessary after lessons learned during ERP activations and based upon After-Action Reports (AARs) and Improvement Plans (IPs), training and exercises, and government agencies' requests, along with best practices and industry standards.

Figure 2: The Emergency Management Continuous Improvement Cycle.



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List of Acronyms

Acronym	Definition
AAR	After Action Report
APPA	American Public Power Association
AST	Section Assistant
BES	Bulk Electric System
CAD	Computer Aided Dispatch
CEO	Chief Executive Officer
CISA	Cybersecurity and Infrastructure Security Agency
CPG	Comprehensive Preparedness Guide
EAS	Emergency Alert System
EEI	Edison Electric Institute
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESF-12	Emergency Support Function
ETR	Estimated Time of Restoration
ETRS	ETR Specialist
FEMA	Federal Emergency Management Agency
FQHC	Federally Qualified Health Center
GIS	Geographic Information System/ Unit Leader
HSEEP	Homeland Security Exercise Evaluation Program
HSEQ	Health Safety Environment & Quality
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
IPAWS	Integrated Public Alert & Warning System
IT	Information Technology

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Acronym	Definition
JIC	Joint Information Center
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
LNO	Liaison Officer
LPE	Life Preserving Equipment Dependent Customers (Customers)
MAA	Mutual Aid Agreement
MMS	Materials Management System
MOE	Major Outage Event
NAWAS	National Warning System
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NRF	National Response Framework
NWR	NOAA Weather Radio
OMME	Municipal Office for the Management of Emergencies
OE	Outage Event
OMS	Outage Management System
OT	Operational Technology
PIO	Public Information Officer
P&I	Planning & Intelligence (Section)
POC	Person of Contact
PR	Puerto Rico
PRASA	Puerto Rico Aqueduct and Sewer Authority
PREB	Puerto Rico Energy Bureau
PREMB	Puerto Rico Emergency Management Bureau
PREPA	Puerto Rico Electric Power Authority
PSA	Public Service Announcement
SCADA	Supervisory Control and Data Acquisition

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1.0 Purpose

The purpose of LUMA Energy All-Hazards ERP is to outline operational concepts and organizational arrangements. The ERP applies to all LUMA personnel assigned functional responsibilities. One of the features of the ERP is scalability. Many emergencies begin at the local level and can quickly escalate to a system-level emergency. LUMA can accommodate local, regional, and system-level emergencies by ensuring that key elements of the Incident Command System (ICS) are implemented at each level within the organization. These key elements are easily replicated using common roles and responsibilities.

The ERP outlines LUMA's philosophy and procedures for managing major outages, emergencies, and other incidents that may disrupt electric service to our customers. They include hurricanes, storms, and other atmospheric disturbances, floods, fires at T&D System facilities, and earthquakes.

It further establishes the structure, processes, and protocols for LUMA's emergency response. This document identifies unit and individual roles directly responsible for those responses and critical support services. In addition, the ERP provides a management structure to coordinate and deploy the essential resources for LUMA's response. Major Outage Event Metrics may apply during incidents that meet the criteria for a Major Outage Event. The Major Outage Event Metrics can be found in Appendix A of Annex A.

The ERP has been developed to enable LUMA to provide services and effectively carry out its responsibilities pursuant to the Puerto Rico T&D System Operation and Maintenance Agreement dated June 22, 2020 (T&D OMA). As part of its responsibilities for managing, operating, maintaining, repairing, restoring, and replacing the T&D System, LUMA's Scope of Services, as detailed in Annex I of the T&D OMA, includes several critical functions. These include emergency preparedness planning, response, and implementation of the ERP to ensure business continuity and electric service, as well as disaster recovery, emergency response and restoration, and all necessary functions related to emergency response, business continuity, reporting, and communication for the T&D System. LUMA's responsibilities include media and other communications with public officials, regulators, and municipal representatives regarding storm preparation, management, coordination, and response for the T&D System. LUMA will take actions during an emergency event that LUMA deems in good faith to be reasonable and appropriate under the circumstances and in accordance with the ERP.

The ERP also forms part of LUMA's compliance with the requirements under Section 6 (m) of Act No. 83 of May 2, 1941 (Act No. 83-1941) as amended, which provides for the submission to the Governor, the Puerto Rico Energy Bureau (PREB), and both Houses of the Legislative Assembly, of an annual report on emergency preparedness. In addition, implementation of the ERP furthers Puerto Rico's energy public policy objectives stated in the Puerto Rico Energy Transformation and Relief Act, Act No. 57 of May 27, 2014 (Act No. 57-2014), and the Puerto Rico Energy Public Policy Act, Act No. 17 of April 11, 2019 (Act No. 17-2019), including taking actions to further the reliability, resilience, and safety of the electric power service in Puerto Rico.

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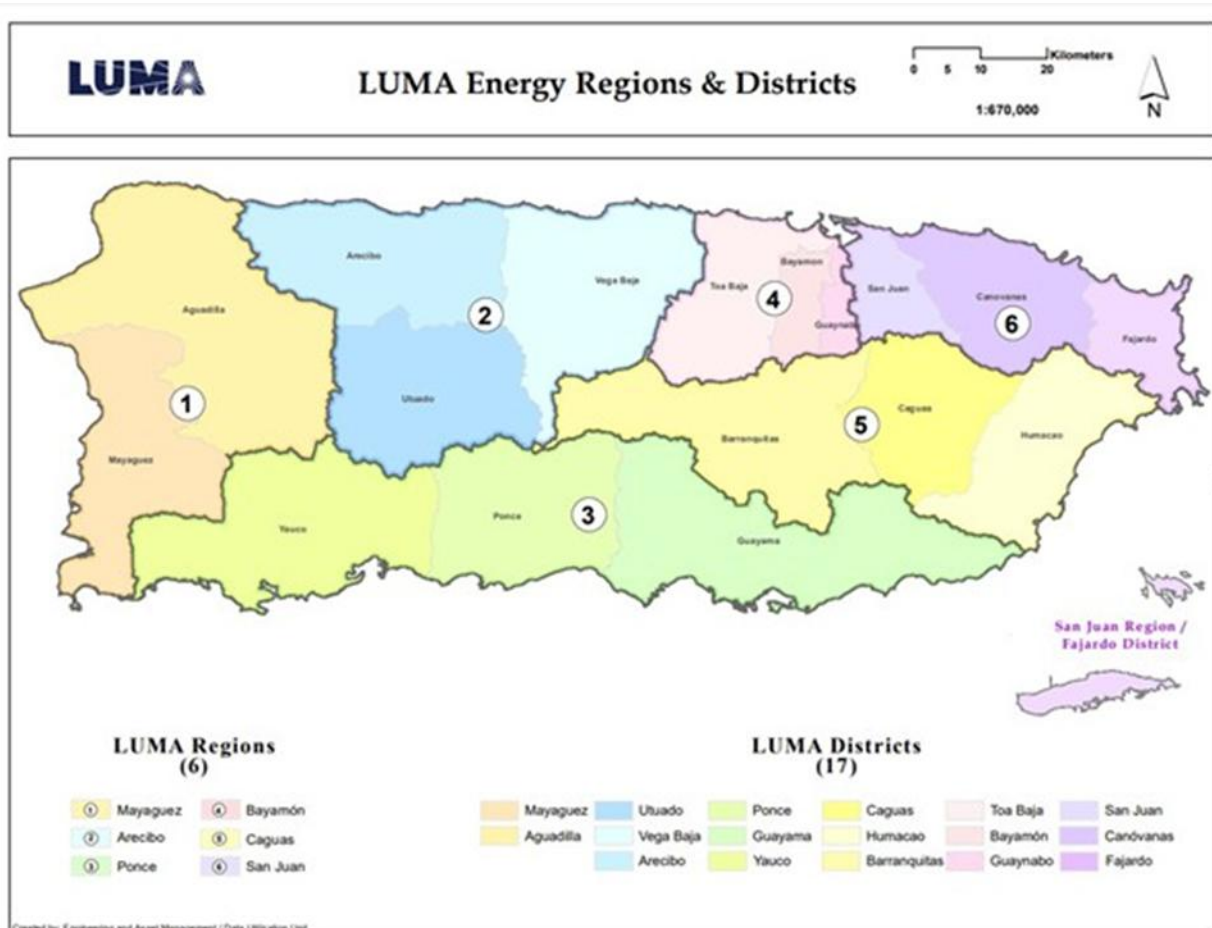
2.0 Scope

This ERP applies to any hazard or threat that results in or could result in a major impact on the integrity of the T&D System and/or a disruption of service to LUMA customers. Additionally, the ERP applies to LUMA personnel and staff, employees of affiliate companies, contractors (including those under prepositioned contracts), mutual aid resources, and any other personnel working under the direction or authority of LUMA.

For the ERP, an Emergency or Emergency Event is defined as a Type 3, 2, or 1 event, as described in the Event Type and Activation Levels, found in Appendix A. Non-Emergency Events, or Type 5 and 4 events, are not necessarily governed by this ERP, but are defined nonetheless to provide tools and guidance to Incident Management Teams (IMTs) responding to events.

LUMA's Emergency Operational Boundaries are divided geographically into 6 regions and 17 districts, comprising 78 municipalities. These are LUMA's Emergency Operational Boundaries (see Figure 3).

Figure 3: LUMA Emergency Operational Boundaries.



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3.0 Implementation

This ERP utilizes the National Incident Management System (NIMS) as the guide for the comprehensive approach to incident management. It is applicable across functional disciplines and at all levels of the response structural framework. Adopting NIMS improves the effectiveness of emergency response across a wide spectrum of potential incidents and hazards, regardless of cause, size, or complexity. NIMS provides a common framework for achieving shared goals and integrating diverse capabilities.

Overall, this approach enables consistent coordination across all levels of government (federal, state, local, and tribal), the private sector, and non-governmental organizations for a variety of incident management activities. LUMA has shaped its emergency response structure around ICS to provide a consistent, all-hazards incident management methodology that integrates with a nationally standardized response and recovery structure.

4.0 Situation and Assumptions

4.1 Situation

Puerto Rico sits between the North Atlantic Ocean and the Caribbean Sea, as the smallest and easternmost island of the Greater Antilles. Of the five geographical regions that make up Puerto Rico, the northern region is the most populous and economically diverse. It is also home to the capital, San Juan. The island is about 9,086 km² (3,508 mi²), and 60% of it is mountainous terrain. Approximately 3.28 million people called Puerto Rico home in 2024.

A variety of events can adversely impact the integrity of Puerto Rico's energy grid. The chance of a hurricane disrupting the island's electricity service has also increased with the frequency of hurricanes in the Atlantic Ocean. Tropical depressions and storms can be devastating; however, hurricanes and their accompanying storm surges pose the greatest threat to life and property. Storm surge and flooding can account for many casualties and property damage. Non-weather events, such as earthquakes or fires, can also cause loss of life and extensive damage to infrastructure and critical systems. LUMA has Earthquake and Fire Annexes to support emergency response for the T&D System for these hazards.

LUMA Energy provides electrical services to approximately 1,468,223 customers in 78 municipalities in Puerto Rico (see Figure 4). Since electricity plays a crucial role in our customers' lives, quick restoration of electric service is a customer's expectation and a LUMA goal, including the prioritized restoration of power for critical infrastructure. The ERP is grounded in evaluating the extent of the event and resource availability to support the response and restoration process, including:

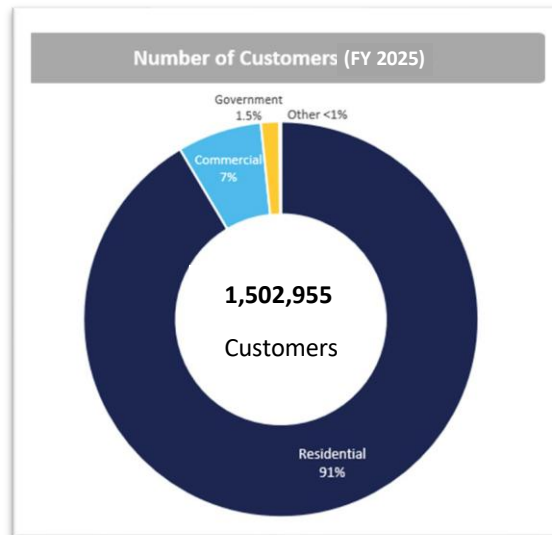
- Damage prediction modeling.
- Rapid damage assessment.
- Field labor resource predictions and placement on the island.
- Material requirement predictions and actual placement during an event.
- Training, exercises, and drills.

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- Effective communication.

Figure 4: LUMA Customers.



The ERP has been designed to provide a systematic, organized approach to facilitate a safe and efficient response to a major outage caused by any hazard. The ERP is constructed to provide a trained, operationally ready workforce, and effective processes that can be deployed as required to deal with the unique aspects of each major emergency event. The effectiveness of emergency response is based on LUMA's commitment to preparing and implementing the procedures outlined in this ERP. The development of an After-Action Report (AAR) following exercises, drills, and real-life emergency events further enables improvement in LUMA's response and restoration processes.

Execution of appropriate responses to achieve rapid and safe recovery depends on the scalability of the ERP. The number of customers affected may vary, but the operational concept remains consistent. The level of recovery resources can be adjusted as needed in accordance with the Major Outage Event Metrics in Annex A of Appendix A.

4.2 Assumptions and Considerations

- Puerto Rico is vulnerable to hazards that could, individually or in combination, negatively impact the T&D System infrastructure LUMA operates.
- LUMA customers include government, business, and individual clients throughout the island.
- An emergency event and/or major outage may occur at any time of the day, night, weekend, or holiday, with little or no warning.
- LUMA is responsible for maintaining, disseminating, and implementing the ERP.
- Response to all emergency events should be guided by the principles of the NRF, NIMS, and ICS.
- The impact of emergency events on the energy infrastructure that LUMA manages varies in scope and severity.

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- Because of the severity of the event, pre-positioned contract resources may be limited to what is in Puerto Rico shortly after the time of an emergency event. Mutual Aid partners off-island may be limited to the resources they have available at the time of the event. They are also limited to resources that can quickly arrive from the mainland. It may take days or weeks to receive resources from the mainland.
- LUMA has mutual aid assistance access with other utility providers in the US mainland.
- The ERP is tested through drills and practical exercises to evaluate the effectiveness and the need for changes or revisions. LUMA exercises the ERP on an annual basis.
- LUMA response personnel and their families may be affected by an emergency or disaster situation. That could lower LUMA's available human resources.
- Negative impacts of a major event include, but are not limited to, displaced populations, disruptions in daily activities, essential public services and government infrastructure, and environmental damage.
- Access to disaster areas may be limited because of damaged infrastructure.
- In organizational, geographical, and jurisdictional terms, events are attended at the lowest possible level. LUMA Crisis Management Committee (CMC) activates the LEOC and appoints the IC, either before an emergency event (based on outage projections) or after one (based on outage and restoration estimates).
- ERP Event Types 1, 2, and sometimes 3, require full activation of ICS. During an ERP activation of a Type 1, 2, or 3 Event, all response functions should be coordinated through the LUMA Emergency Operations Center (LEOC). Type 4 events may require partial activation, depending on the personnel resources needed to address the identified needs based on the situation. Planned events with high visibility or importance, such as primaries, general elections, Fiestas de la Calle San Sebastian, among others, can be handled as Type 4 events activating the LEOC.
- The LUMA facility in Santurce is located at 1110 Avenida Ponce de León, San Juan, Puerto Rico. It serves as the primary LEOC.
- The alternate LEOC is located in Palo Seco at Carr. #165 km 31.8 Palo Seco, Toa Baja, PR.

5.0 Mission

LUMA strives to meet customers' needs through risk assessments and continuous communication regarding planning for, responding to, and recovering from major outages to achieve excellence as an industry leader. LUMA consistently emphasizes public and employee safety as a top priority during each response. LUMA's efforts to protect customers and build back stronger – through prevention and mitigation of potential impacts – will drive the overall resilience of maintaining electric utilities throughout Puerto Rico.

NIMS defines the Emergency Operation Center (EOC) as a central command-and-control system responsible for carrying out the principles of emergency preparedness, emergency management, or disaster management at a strategic level during an emergency, and ensuring the continuity of operations of a company, political subdivision, or other organization. An EOC is a location from which leaders of a

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jurisdiction or organization coordinate information and resources to support incident management activities (on-scene operations).

EOC team structure and composition can vary widely. Virtual or hybrid EOCs may be used to expand the EOC when physical space is limited, to create a safer operating environment (e.g., for social distancing measures or if access to the EOC is impeded), to include additional stakeholders from the whole community who may not be able to be physically present or to support coordination during incidents in which conditions do not require in-person coordination to perform EOC functions.

Primary functions of staff in EOCs, whether virtual or physical, include:

- Collecting, analyzing, and sharing information
- Supporting resource needs and requests, including allocation and tracking
- Coordinating plans and determining current and future needs
- In some cases, providing coordination and policy direction

LUMA follows NIMS principles in the structure and operation of the LEOC. This facilitates coordination between LEOC staff and various agencies and organizations during an emergency. More information on the LEOC procedures is available in the Standard Operating Guide (SOG) titled LEOC Guidebook.

5.1 Community Lifeline

The use and analysis of Community Lifelines enhances LUMA's ability to positively impact Puerto Rico's communities during normal operations and major outages. Community Lifelines not only enable the continuous operation of critical government and business functions, but they are also essential to human health, safety, and economic security.

The eight Community Lifelines were established by the Federal Emergency Management Agency (FEMA) following Hurricane Maria in 2017. They were tested and validated in the aftermath of five disasters in 2018 and 2019, starting with Hurricane Michael. This was followed and tested by Hurricanes Florence and Dorian, Super Typhoon Yutu, the Alaska Earthquake, and the Shaken Fury full-scale exercise. FEMA prepared an AAR for each disaster to analyze its disaster management. The AARs recommended updating the NRF to prioritize the restoration of key lifelines and to incorporate an eighth category: water systems. Its purpose is to highlight the significance of cross-sector coordination prior to, during, and after a disaster.

Stabilizing Community Lifelines is a priority. In some cases, the disruption to lifeline services is brief, but it is not uncommon to prioritize the restoration of crucial lifelines in phases. Contingency response solutions (e.g., power generators, emergency communications) are frequently used to stabilize and provide time to accomplish the long-term recovery goal of restoration. Until the Community Lifeline services have been re-established, contingency response solutions should remain in place. The National Preparedness Goal established 32 core capabilities in emergency management to address the greatest risks. Figure 5 on the following page details each lifeline and the core capabilities it addresses.

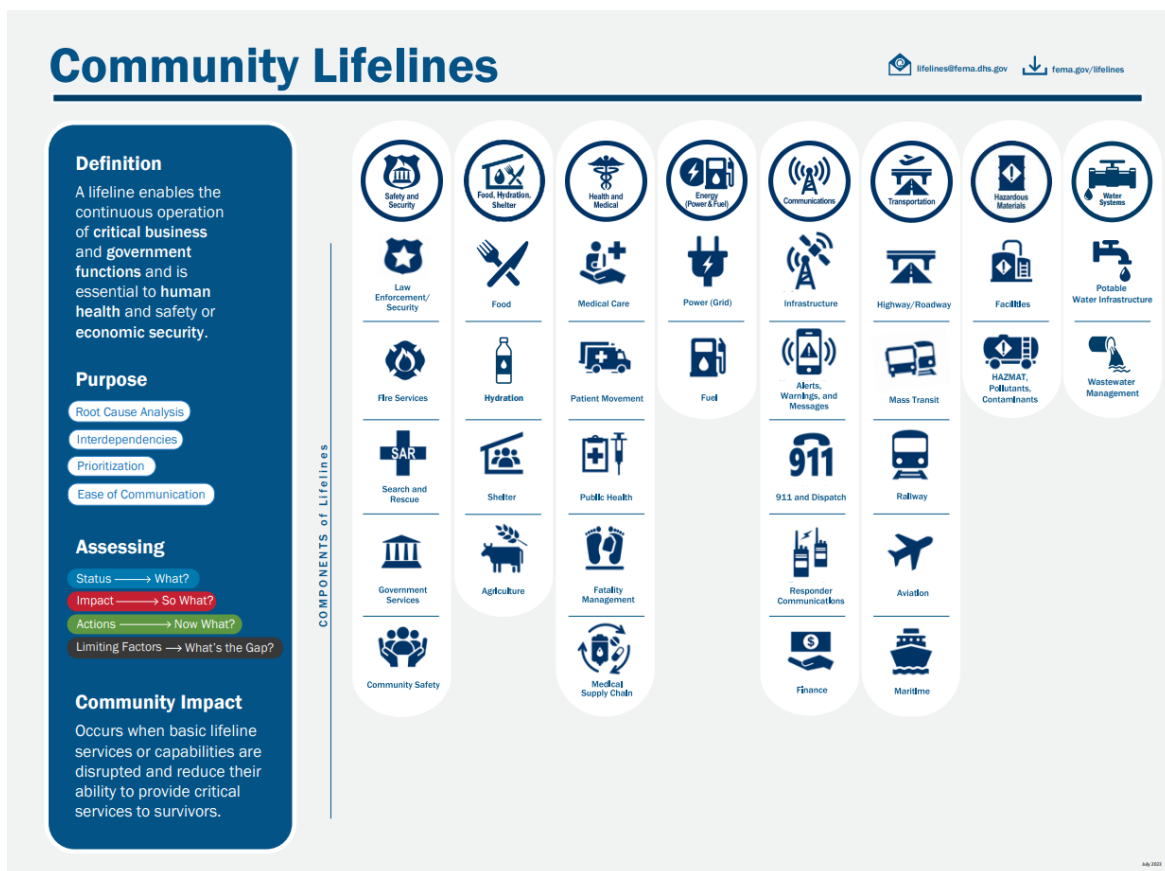
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The ERP discusses all eight Community Lifelines, as all critical infrastructure sectors rely on their functions (NIPP, 2013). The eight Community Lifelines are:

- Energy (Power & Fuel)
- Food, Hydration, Shelter
- Transportation
- Communications
- Water Systems
- Health and Medical
- Safety and Security
- Hazardous Materials

Figure 5: Community Lifelines 1-8, Defined.



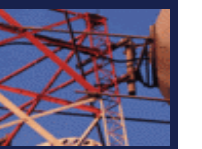
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The Energy Lifeline (Power and Fuel) provides vital power and/or fuel to all critical infrastructure. Energy is so heavily relied upon that a power interruption would substantially disrupt the security and resilience of other critical infrastructure sectors. In turn, the Energy Sector depends on many other critical infrastructure sectors, such as transportation, water, and communications.

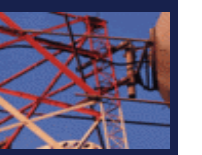
A general outline of interdependencies among the lifeline functions is shown in Table 1 below. The electricity and fuel subsectors provide essential power and fuel to the Communication, Transportation, and Water Sectors. In return, both subsectors rely on them for fuel delivery (transportation), electricity generation (water for production and cooling), as well as control and operation of infrastructure (communication). Communication between these utilities is in accordance with the LUMA Major Outage Event Metrics, found in Appendix A of Annex A.

Table 1: Interdependencies Among Fuel, Electricity, Transportation, Water, and Communication.

(Sub)sector Generating the Service	(Sub)sector Receiving the Service				
	Fuel	Electricity	Transportation	Water	Communication
					
Fuel		Fuel to operate power plant motors and generators.	Fuel to operate transport vehicles.	Fuel to operate pumps and treatments.	Fuel to maintain temperatures for equipment; fuel for backup power.
Electricity	Electricity for extraction and transport (pumps, generators).		Power for overhead transit lines, traffic signals, and street lighting.	Electric power to operate pumps and treatment.	Energy to run cell towers and other transmission equipment.
Transportation	Delivery of supplies and workers.	Delivery of supplies and workers.		Delivery of supplies and workers.	Delivery of supplies and workers.
Water	Production water.	Cooling and production water.	Water for vehicular operation; cleaning.		Water for equipment and cleaning.

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(Sub)sector Generating the Service	(Sub)sector Receiving the Service				
	Fuel	Electricity	Transportation	Water	Communication
					
Communication	Breakage and leak detection, and remote control of operations.	Detection and maintenance of operations and electric transmission.	Identification and location of disabled vehicles, rails, and roads; the provision of user service information.	Detection and control of water supply and quality.	

5.2 Risk Analysis of Community Lifeline

Community Lifelines are fundamental when stabilized. They integrate services that enable communities and governments to operate effectively and safely. When disaster strikes, it is important to identify the impacted lifelines. LUMA needs to determine which lifelines should be restored first. Then, LUMA can decide on the necessary actions to stabilize them.

Assessing these lifelines enables LUMA to identify which are most vulnerable and prioritize their resilience, ensuring greater life safety and protection of property and the environment, while enhancing the overall resilience of the T&D System. Further analysis and ties to critical loads are located within the Critical Facilities List section of Appendix C.

Information sourced from the Puerto Rico Department of Public Safety and the Emergency Management Bureau (PREMB, 2023) identifies each hazard and the anticipated levels of vulnerability, consequences, and probability of its occurrence (see Table 2). It assists LUMA in identifying the scale and complexity of a disaster, the lifelines it impacts, and the interdependencies of those impacts. Although it is not a complete gap analysis, this assessment further assists LUMA in developing operational priorities, objectives, response guidance, and public information and communication recommendations. Due to its geographical characteristics, Puerto Rico is familiar with a variety of natural and man-made hazards that have the potential to affect or cause harm to life, property, and the environment.

Table 2: Hazards Ranked by Vulnerability, Consequence, and Probability from a Utility Perspective.

Hazard	Vulnerability	Consequence	Probability
Flood	High	High	High
Severe Weather*	High	High	High
Earthquake	High	High	High
Tsunami	High	High	Moderate
Windstorm	Moderate	High	Moderate

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Hazard	Vulnerability	Consequence	Probability
Wildfire	Moderate	Moderate	Moderate
Lightning	Moderate	Moderate	Moderate
Landslide	Moderate	Moderate	High
Dam/Levee Failure	Moderate	Moderate	Moderate
Infectious Diseases	Moderate	Moderate	Low - Moderate
Tornado	Moderate	Moderate	Low
Terrorism	Moderate	Moderate	Low
Expansive Soils	Low	Moderate	Moderate
Drought	Low	Low	Moderate - High
Extreme Heat	Low	Low	Moderate
Hailstorm	Low	Low	Low

5.2.1 Energy

The Energy Lifeline is crucial to sustaining essential services during emergencies. Storms like hurricanes frequently disrupt power generation, transmission, distribution infrastructure, and operations, leading to severe hardships and sometimes life-threatening conditions for affected communities. In addition, the cascading impacts of power outages affect other critical response lifelines, further deteriorating conditions for survivors and complicating response efforts.

In 2016, the Central Aguirre Power Plant fire was determined to have been caused by faulty equipment and inadequate maintenance. This fire left an estimated 1.5 million people without electricity for two and a half days. In 2017, Hurricane Maria caused a complete power outage, and it was not until 11 months after landfall that power was completely restored. It was estimated that, on average, citizens went 84 days without power, 68 days without water, and 41 days without cell phone service (Kishore et al., 2018). In 2018, an excavator working near a fallen 140-foot transmission tower on the southern side of the island caused an electrical fault that caused a blackout across the island in almost every home and business for 36 hours.

In 2020, a series of earthquakes caused power outages across Puerto Rico that lasted approximately 96 hours. These earthquakes also damaged the island's largest power plant, Costa Sur. On July 29, 2020 (one day before Tropical Storm Isaias made landfall in Puerto Rico), 400,000 customers were left without power due to equipment failure. After Isaias made landfall, an additional 400,000 customers lost power (Associated Press, 2020). In September 2022, Hurricane Fiona caused significant damage across the T&D system and resulted in a wide mainland power outage. The generator serving the island of Culebra, with 3 MW, was the only unit operating solely for Culebra (1,229) customers.

Each of these incidents demonstrates how vulnerable Puerto Rico's electrical grid is. As shown in Table 1, energy is a prerequisite for every other Community Lifeline to provide the services crucial to a community. We analyze several factors in the following sections. These include interdependencies and natural or man-made hazards. These elements could negatively impact LUMA's ability to provide service.

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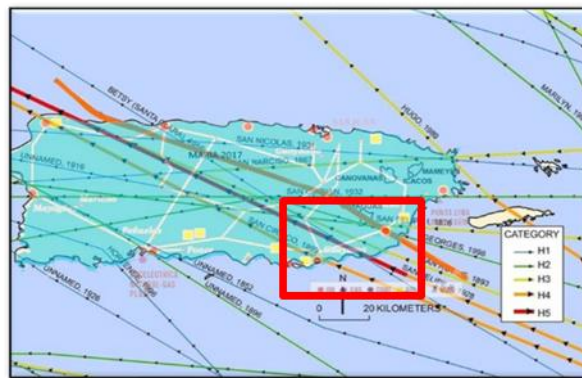
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Power Grid

While most power is consumed on the north coast of the island, most of the power generated in Puerto Rico originates on the south coast. The electrical grid depends on the aboveground T&D System lines that go through the mountainous central parts of Puerto Rico to deliver power to the rest of the island. Mountainous terrain may require specific actions and resources to provide workers executing repairs or maintenance on the T&D System with access to lines and other infrastructure.

Puerto Rico's power generation system comprises fossil fuel and hydroelectric generation sites owned by the Puerto Rico Electric Power Authority (PREPA). While PREPA manages some of these sites, a significant portion is managed by Genera PR. Additionally, there are privately owned generation facilities comprising a combined-cycle gas turbine plant, a two-unit conventional thermal coal-fired plant, two wind farms, and seven solar farms. Hurricane season spans from June 1 to November 30, a six-month period where Puerto Rico's electricity grid is most likely to be impacted by tropical storms and hurricanes.

Figure 6: Historical Hurricane Trajectories Over the Power Generation Layout of Puerto Rico.



As shown in Figure 6, most of the hardest-hitting hurricanes have made landfall on the southeast side of the island between the municipalities of Humacao and Guayama. This area is also home to several power generation plants, such as Central Aguirre, AES, Santa Isabel wind farm, and Humacao solar farm.

Puerto Rico is also surrounded by geological faults, and some of them even cross over the island, as shown in Figure 7. Up until February 2024, the Puerto Rico Seismic Network recorded over 12,000 earthquakes in the Puerto Rico region. A handful of earthquakes with a magnitude greater than 7.0 (per the Richter scale) have caused significant destruction to the island's infrastructure. An earthquake can also result in a tsunami. Tsunami waves in the Puerto Rico region could have an average height of 30 feet. A tsunami on the northern coast of the island could affect the Central San Juan, Palo Seco, and Cambalache power plants. A tsunami on the southern coast of the island could affect Costa Sur, Central Aguirre, AES, and EcoEléctrica.

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Figure 7: Major Geological Faults Overlapping the Power Generation Layout of Puerto Rico.



Another important part of electric utility maintenance is vegetation management. LUMA's Vegetation Management Plan includes steps to improve and maintain vegetation control to achieve a more resilient T&D System and to support emergency preparation. Vegetation management encompasses a comprehensive tree-trimming program. This program systematically produces quarterly reports known as Vegetation Clearing Filings. These reports provide detailed information regarding the vegetation remediation effort and miles cleared by voltage level while considering leading practices for ecological restoration and debris management.

As the world witnessed in 2020 with the novel coronavirus disease (COVID-19), a pandemic can affect every facet of life. Although this type of hazard does not directly affect the power grid, it has the potential to greatly impact LUMA's workforce. Any disaster event due to an outbreak, epidemic, or pandemic would require modification or cancellation of staff assistance. The unavailability of personnel due to illness or quarantine could necessitate changes to operational practices during a pandemic.

Fuel

Transporting fuel across the island poses significant challenges, even under normal conditions. These are exacerbated during disasters due to potential port inoperability, debris-blocked roads, and fuel shortages. Following Hurricane Fiona, the fuel lifeline's resilience was once again tested as essential transportation routes were obstructed, limiting fuel distribution to generators and critical facilities. Fuel-dependent backup generators, while essential for temporary power restoration, are not designed for extended use and require regular maintenance every 500 hours, as well as frequent refueling (Santiago, 2022). Without consistent access to fuel, many critical services risked failure, affecting essential functions across the island. Post-disaster, some gas stations experienced extensive lines, a scenario familiar from Hurricane Maria, where fuel availability issues stemmed largely from transport and distribution challenges rather than an actual fuel shortage (Delgado *et al.*, 2022). Communications systems breakdowns further exacerbated this issue, making coordination with fuel suppliers and drivers difficult and leading to long delays at fuel stations (FEMA, 2022).

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The government of Puerto Rico recognized these challenges and tasked the Department of Public Safety to issue two administrative orders in June 2024. The orders created two focus groups, the Puerto Rico Energy Task Force and the Fuel Task Force.

5.2.2 Food, Hydration, Shelter

The Food, Hydration, Shelter Lifeline is a support system that sustains human life, including food retail and distribution networks, water treatment, transmission, and distribution systems, housing, and agricultural resources. This Lifeline consists of four components: Food, Water, Shelter, and Agriculture. Each of these components contains sub-components, as shown in Table 3.

Table 3: Components and Subcomponents of the Food, Water, Shelter Community Lifeline.

Food	Hydration	Shelter	Agriculture
- Commercial Food Distribution - Commercial Food Supply Chain - Food Distribution Programs (e.g., food banks)	Drinking Water utilities (intake, treatment, storage, and distribution)	- Housing (e.g., homes, shelters) - Commercial Facilities (e.g., hotels)	Animals and Agriculture

Food

Contemporary food supply chains are highly reliant on interconnected systems such as electricity, telecommunications, transportation, and fuel networks. Grocery stores, for example, depend on power systems for lighting, payment processing, climate control, and refrigeration. When the electrical grid is down, as seen in Hurricane Fiona’s aftermath, grocery stores require generators and a consistent fuel supply to operate. This demand poses logistical challenges, as fuel must be transported from ports, a task that may be difficult or impossible during severe weather events (FEMA, 2022). Puerto Rico imports approximately 85% of its food, which underscores the island’s vulnerability to supply chain disruptions during emergencies (Villarini *et al.*, 2022). After Hurricane Maria, this dependence increased, with imports accounting for 95% of food consumption, highlighting the lack of local food production and storage capacity during disasters (Mares, 2022). Fiona’s impact further exposed these vulnerabilities, as limited fuel and power outages led to widespread shortages and disruptions across Puerto Rico’s food supply chain.

Hydration

Involves ensuring access to safe and sufficient drinking water for individuals affected by disasters or emergencies. This includes setting up water distribution points, providing water purification methods when necessary, and coordinating efforts to meet the community’s hydration needs. It also involves monitoring and addressing potential issues with water quality and availability to safeguard the well-being of the affected population in shelter settings. Coordination with relevant authorities, relief organizations, and local resources is crucial to effectively managing the hydration component within the broader community lifeline.

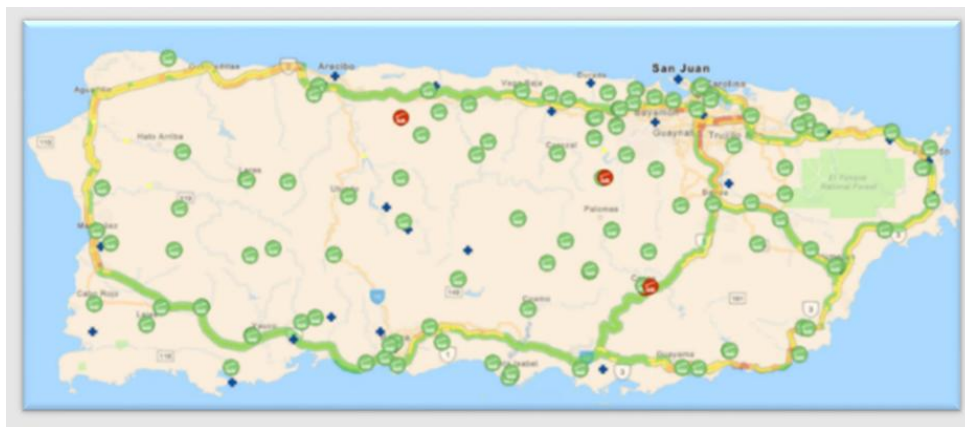
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Shelter

The FEMA Shelter Inventory Map identifies 365 shelters across the 78 municipalities in Puerto Rico (see Figure 8). During Hurricane Fiona, approximately 25,000 people sought shelter across the island, highlighting a continued dependence on emergency shelter support in the wake of major storms (FEMA, 2022). To operate effectively, shelters require reliable electricity to ensure access to pressurized, clean water for hygiene, climate control, and lighting. In addition to these essentials, power is often necessary for food storage and preparation to meet residents' basic needs over extended periods. Fiona's impact underscored vulnerabilities in Puerto Rico's shelter infrastructure, as ongoing power and water outages complicated efforts to provide secure and comfortable environments for displaced individuals (American Red Cross, 2023).

Figure 8: Map of Shelters.



Agriculture

Farms need a multitude of resources to continue operating, most of which are dependent on electricity. Fans and lights for the animals, fans to dry and remove grain dust in silos to prevent grain dust explosions, and machines for milking cows and processing milk are activities that require the power grid to remain operational.

5.2.3 Transportation

The Transportation Lifeline encompasses multiple modes of transportation that often serve complementary functions and create redundancy, adding to the resilience of overall transportation networks. This Lifeline comprises five components: Highway/Roadway, Mass Transit, Railway, Aviation, and Maritime. Each of these components contains several sub-components, as shown in Table 4.

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Table 4: Components and Subcomponents of the Transportation Community Lifeline.

Highway / Roadway	Mass Transit	Railway	Aviation	Maritime
- Roads - Bridges	- Bus - Rail - Ferry	Passenger	- Commercial (e.g., Cargo/Passenger) - General - Military	- Waterways - Ports and Port Facilities

Reliable transportation is crucial to any economy. The importance of this lifeline became especially evident during Hurricane Fiona in 2022, which caused severe disruptions across multiple transportation modes, much like the devastation caused by Hurricanes Maria and Irma. This negatively impacted everyone: those seeking emergency assistance and medical care, traveling to work or school, and finding and reuniting with loved ones.

Hurricane Fiona, which made landfall in September 2022, caused widespread flooding and landslides, further damaging roads that were still being repaired from previous storms. The roadways were severely impacted, with major thoroughfares rendered inaccessible due to debris and inundation, complicating the delivery of emergency services and slowing recovery efforts. The lack of operational roadways and the fuel supply crisis mirrored the challenges faced after Maria, when the movement of workers, equipment, and essential goods was delayed by fuel shortages and logistical issues. This limited the restoration of Energy Lifeline, hindering overall recovery.

In terms of public transportation, Puerto Rico's only heavy-rail system, "Tren Urbano," also faced interruptions. Similar to the three-month suspension it experienced after Hurricane Maria, Fiona caused further transportation disruptions, making it difficult for residents to access services or reach safety. Airport operations, notably at Luis Muñoz Marín International Airport, were once again disrupted by downed power lines and hazardous conditions, hampering both civilian and military response efforts. As for maritime operations, the Port of San Juan —Puerto Rico's primary port for importing supplies— faced similar vulnerabilities during Hurricane Fiona. Though it remained operational after the storm, any significant damage to this lifeline would have crippled the island's ability to receive critical resources, as evidenced by the delays and bottlenecks in shipping observed after Maria (Otero, L., & Martínez, P. 2023).

The challenges posed to Puerto Rico's transportation lifeline by hurricanes highlight the island's need for more resilient infrastructure to manage future disasters efficiently.

5.2.4 Communications

Communications Lifeline comprises of infrastructure owners and operators of broadband internet, cellular and landline telephone networks, cable services, satellite communications services, and broadcast networks (radio/television). These systems encompass diverse modes of delivery, often intertwined but largely operating independently. This Lifeline comprises five components, as shown in Table 5.

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Table 5: Components and Subcomponents of the Communications Community Lifeline.

Infrastructure	Responder Communications	Alerts, Warnings, and Messages	Finance	911 and Dispatch
- Wireless - Cable Systems and Wireline - Broadcast (TV and Radio) - Satellite - Data Centers/Internet	LMR Networks	- Local Alerts/Warning Ability - Access to IPAWS (WEA, EAS, NWR) - NAWAS Terminals	- Banking Services - Electronic Payment Processing	- Public Safety Answering Points - Dispatch

In disasters, communication systems can quickly become inoperable. When Energy Lifeline is disrupted, the infrastructure used daily to receive and send information can be rendered obsolete. During Hurricane Maria, many residents had limited access to communication, with only two local AM radio stations providing updates (FEMA, 2022). Radio often remains the most dependable communication tool during crises when the electrical grid, internet, and cell service are down (American Red Cross, 2023).

The American Red Cross (ARC) advises including a battery-powered radio in disaster kits, emphasizing its role as a reliable source of mass messaging during major disruptions. With backup power and a reinforced antenna, AM/FM radio can deliver continuous updates, helping alleviate public anxiety and providing vital information on emergency response efforts (ARC, 2023).

Effective public communication is essential to disaster preparedness, mitigation, response, and recovery. LUMA uses customer notification systems, media outlets, and other channels to keep residents and local governments informed about outages and estimated restoration times. Internal communications are equally crucial, as they enable the LEOC to coordinate among the contact center, state Emergency Operations Centers (EOCs), Regional Operation Command Centers (ROCCs), regulatory agencies, elected officials, and necessary resources.

The ability to call 911 during and after a disaster is essential. However, during Hurricane Maria, island-wide communication failures made it difficult to reach 911. With non-operational landlines and cell service, many callers couldn't connect to emergency dispatch, and responders struggled to reach those in need (Villarini *et al.*, 2022). Public Land Mobile Radio (LMR) systems, used by police, fire, ambulance, and other government organizations, are highlighted for their ability to maintain essential emergency communication capabilities during such crises. For detailed information, please refer to the Communication Annex G.

5.2.5 Hazardous Materials

The Hazardous Materials Lifeline is a paramount system that supports the sustainability of essential resources, including food retail, water treatment and distribution, housing, and agriculture. This lifeline has two primary elements: the hazardous materials (HAZMAT) themselves and the facilities that house them. Each of these components contains sub-components, as shown in Table 6.

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Table 6: Components and Subcomponents of the Hazardous Materials Community Lifeline.

Facilities	HAZMAT, Pollutants, Contaminants
- Oil/HAZMAT Facilities (e.g., chemical, nuclear) - Oil/HAZMAT/Toxic Incidents from Facilities	- Oil/HAZMAT/Toxic Incidents from Non-Fixed Facilities - Radiological or Nuclear Incidents

In the wake of Hurricane Fiona, efforts focused on managing potential hazardous material threats, with government and local agencies coordinating to prevent environmental damage. As part of recovery, agencies assessed HAZMAT facilities and provided support for local hazardous waste collection. For instance, the U.S. Environmental Protection Agency (EPA) conducted facility assessments and deployed personnel to ensure the safe handling of potentially hazardous materials. This proactive response reflects lessons learned from Hurricane Maria, when approximately 60 tons of solid and hazardous liquid waste were collected and removed for safe disposal (EPA, 2023). The region's lack of nearby nuclear facilities limits some risk factors; the only nuclear reactor in the Caribbean remains in Jamaica (Smith, 2022).

5.2.6 Health and Medical

The Health and Medical Community includes Emergency Medical Services (EMS) and acute care, which are critical to addressing the immediate, life-saving needs of survivors after a disaster. As medical care facilities are restored, this lifeline also includes longer-term services such as behavioral health and public health operations to support recovery. The five main components of this lifeline are essential for stabilizing public health in disaster scenarios, as shown in Table 7 below.

Table 7: Components and Subcomponents of the Health and Medical Community Lifeline.

Medical Care	Public Health	Patient Movement	Medical Supply Chain	Fatality Management
- Hospitals - Dialysis - Pharmacies - Long-Term Care Facilities - VA Health System - Veterinary Services - Home Care	- Epidemiological Surveillance - Laboratory - Clinical Guidance - Assessment/Interventions/Treatments - Human Services - Behavioral Health	Emergency Medical Services	- Blood/Blood Products - Medical Saline - Medical - Manufacturing (Pharmaceutical, Device, Medical Gases) - Distribution - Critical Clinical Research - Sterilization - Raw Materials	Mortuary and Post-Mortuary Services

During disasters such as hurricanes, the healthcare system faces severe strain due to increased demand, infrastructure damage, and loss of essential services. For instance, in the aftermath of Hurricane Maria in 2017, most hospitals in Puerto Rico were left without electricity, and only a small number could function fully due to communication breakdowns and a lack of fuel for generators. FEMA's initial planning assumed

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that 56% of hospitals would be affected by the storm, but 92% were impacted, leading to a severe healthcare crisis (FEMA, 2024).

Similarly, Hurricane Fiona in 2022 significantly impacted Puerto Rico, exacerbating ongoing challenges in the health sector. Flooding, power outages, and disruptions in water and communication systems made it difficult for medical facilities to function, forcing emergency services to improvise in providing care to vulnerable populations. Many communities experienced delays in accessing medical care, and public health operations were hindered by infrastructure damage and resource shortages (FEMA 2022).

Stabilization of the Health and Medical Community Lifeline after a disaster depends heavily on the recovery of other critical infrastructure, such as electricity, water, and communications. Hospitals need these services to operate and manage waste, maintain medical supplies, and support patient care. Full stabilization occurs when all survivors, including pets and service animals, can access medical care, public health services, and stable medical supply chains. Addressing these challenges requires comprehensive planning and a resilient healthcare infrastructure to ensure that life-saving services can continue during and after disasters like Hurricane Fiona.

5.2.7 Safety and Security

The Safety and Security Lifeline is a support system that sustains human life through first responder and government services, law enforcement, and community safety programs. This Lifeline comprises five components: Law Enforcement Safety, Fire Services, Search and Rescue, Government Service, and Community Safety. Each of these components contains sub-components, as shown in Table 8.

Table 8: Components and Subcomponents of the Safety and Security Community Lifeline.

Law Enforcement/ Security	Fire Service	Search and Rescue	Government Service	Community Safety
- Police Stations - Law Enforcement - Site Security - Correctional Facilities	- Fire Stations - Firefighting Resources	Local Search and Rescue	- Emergency Operation Centers - Essential Government Functions - Government Offices - Schools - Public Records - Historic/Cultural Resources	- Flood Control - Other Hazards - Protective Actions

In the Communications Lifeline section, we discussed the need to be able to contact response personnel. This becomes even more crucial during an emergency event. However, before response personnel can be contacted, they must be available, correctly equipped, and ready to deploy. Search-and-rescue assets should be sufficient to assist all survivors. Fire suppression resources and personnel may be called upon in emergencies that extend beyond fire-related incidents.

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Threats to life or safety are concerns for all response personnel and impact on communities. Each of these subcomponents of the safety and security lifeline is imperative. When essential government functions can operate, immediate and long-term recovery from an emergency event is easier.

5.2.8 Water Systems

The Puerto Rico Aqueduct and Sewer Authority (PRASA) owns and operates the island-wide public water and wastewater systems. There are approximately 50 wastewater, and 100 drinking water treatment facilities located in Puerto Rico. Over 97 percent of Puerto Rico's population is served by PRASA's water system, and approximately 59 percent is served by PRASA's wastewater system (AAFAF, 2024). Those who do not receive their water services from PRASA still rely on power to utilize water. Several surface water and groundwater resources across the island provide residents with fresh water and are also used for agricultural, industrial, and energy-based purposes. The North Coast Karst Aquifer System of Puerto Rico is the island's most productive aquifer.

Approximately 30 days after Hurricane Maria, 36% of those connected to PRASA's water system were still without access to water, which equates to nearly one million people (Garcia-Lopez, 2018). The loss of electricity affects water pumping stations and lift stations, cutting off the water supply to residents. When water treatment plants lose power or do not function properly, drinking water becomes contaminated, making it difficult to comply with boil notices without electricity.

6.0 Concept of Operation

6.1 General

In the event of an emergency, LUMA assesses the impacts on the T&D infrastructure. After the assessment, LUMA takes the necessary actions to restore Community Lifelines as rapidly as possible and minimize the impact on the citizens of Puerto Rico. LUMA utilizes Event Types (Appendix A) for major events and response phases.

6.2 Plan Activation

The success of the response hinges on the effective and timely activation of emergency response personnel. In the event of significant emergencies, the LUMA Crisis Management Committee (CMC) may mobilize the Command Staff, and General Staff across the island to bolster the response effort. The declaration of an internal critical event is the responsibility of the LUMA Chief Executive Officer (CEO) or their designee. This occurs when natural, human, or technological disasters pose a threat that could substantially impact T&D operations. Detailed triggers and procedures for emergency response activation are provided in Annex F.

6.2.1 Organization Activation

To manage day-to-day events or potential threats to the system (Type 4 and 5 events), LUMA uses the principles outlined in the document to manage coordination and response efforts. In these situations, such as an Outage Event (OE), as defined in the OMA, LUMA's Senior Vice President for Operations establishes an Incident Management Team (IMT) to respond to events. The principles described within the document,

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including management by incident objectives, operational periods, and Incident Action Plans (IAPs), may be used if deemed beneficial for response efforts.

If it is not possible to effectively manage an event through normal operating procedures, the LEOC is activated by the CMC and appointing the LUMA IC. Due to the size and nature of the activation process, it is intended to be a cascading activation to maximize response efficiency and consistency.

The IC, or his/her designee, shall subsequently establish an Event Type relative to the complexity of the outage event, resources that may be needed, and the expected impacts of the event. The IC then determines the required Command and General Staff and the Activation Level.

6.2.2 Decision Methodology

The emergency response process begins with an evaluation of system conditions to identify the Event Type and Activation Level.

The criteria may include weather forecasts, the number of customers projected to be impacted, estimated damage to the T&D system, and estimated impacts on Community Lifelines and critical infrastructure. The criteria in Appendix A of Annex A are used to help establish the level of emergency response needed, including the activation of the LER and/or the LEOC and the activation of associated resources, including mutual aid support. It is important to re-evaluate the Event Classification and Activation Level every 12-24 hours, particularly when external conditions are changing rapidly.

The order of determining an Event Type and Activation Level may be dependent on if the cause of the activation is a forecasted potential incident or a no-notice incident.

6.2.3 Forecasted Potential Incidents and Scheduled Events

Forecasted potential incidents provide a preparedness window before they occur, positioning the organization for a response. Most of the time, these incidents are atmospheric and forecasted (e.g., hurricanes and rainstorms). Forecasted events, such as scheduled protests, sporting events, and conventions, also have the potential to lead to unplanned incidents.

For a forecasted incident, the Activation Level must be determined first, followed by the establishment of an Event Type. The Event Type may change once an incident starts to negatively affect any part of the T&D System (e.g., when weather forecasts change or when a storm starts to make landfall).

The T&D Operations and EP Department monitor weather forecasts. When it is determined that the forecast contains severe weather systems that may impact the T&D System, an alert is sent to the appropriate key response members to discuss initial coordination activities. LUMA personnel use weather data provided directly by the Puerto Rico based, National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), a federal agency organized under the administration of the U.S. Department of Commerce, and other information, such as the Department of Energy/Pacific Northwest National Laboratory (DOE/PNNL) developed EGRASS which is used for damage prediction, to make the determination of which Event Type is likely and in which area(s) the island can expect impact.

For major forecast events, Event Types 1, 2, and 3 (such as a major hurricane) receive a multiple-day advance notice. In these cases, if imminent, LUMA activates the appropriate response as outlined in this

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ERP. Preparation for such events is supported by reviewing the H-136 Timeline checklist (Appendix B of Annex D) to ensure daily progress aligns with the planned response.

Events that are more challenging to forecast are those that start or are estimated to be an Event Type 4 and escalate to an Event Type 3 or higher. This ERP enables a response to such events through a series of protocols that activate all functions under the ICS.

If it is determined that a minor event is likely (Event Types 4 or 5), LUMA manages the event through normal operational procedures. If the event escalates, protocols are in place to activate the LER. If it is predicted to be an emergency event (Event Types 1 to 3), LUMA implements its pre-event protocols and activities under the ICS structure as appropriate. The ERP allows for scalability, rapid escalation, or de-escalation, as needed.

Pre-event planning activities include, but are not limited to:

- Identifying the IC, Event Type, and Activation Level for the incident.
- Initiating pre-event system conference call(s) with all required personnel.
- Activating each required section under ICS, including Operations with subordinate Regional Operations Command Centers (ROCCs), Logistics, Planning & Intelligence (P&I), Finance, and Command Staff, and implementing notifications for internal personnel to the extent needed.
- Reviewing the appropriate guides, checklists, plans, and procedures.
- Acquiring the estimated resource requirements necessary for the assigned event type, including activating pre-positioned contracts and possibly mutual aid requests.
- Initiating preliminary communications to the public, Life Preserving Equipment Dependent (LPE) Customers, municipal and elected officials, including required notifications to regulatory agencies (Pre-Event Reporting) if classified as an Event Type 1, 2, or 3.
- Mobilizing the LEOC, ROCCs, and other required remote team resources as appropriate for the event type assigned.
- Initiating notifications to external providers such as staging site property owners, suppliers, contractors, etc., where necessary.

6.2.4 No-Notice Incidents

A no-notice incident occurs without warning or with minimal notice (e.g., earthquakes, tsunamis, chemical spills, terrorist attacks). For a non-notice incident, the Event Type must be determined first, followed by the establishment of the Activation Level. The lack of warning and the need for a swift response present unique challenges.

No-notice incidents do not provide emergency responders with sufficient time to prepare for the specific incident. This greatly affects LUMA's ability to pre-position needed assets and resources as well as warn and direct the public.

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If it is determined that a minor event is likely (Event Types 4 or 5), LUMA manages the event through normal operational procedures, using an IMT structure under LUMA's Senior VP for Operations. If the event escalates, protocols are in place to activate the LEOC if it is predicted to be an emergency event.

For Event Types 1, 2, or 3, LUMA implements its pre-event protocols and activities under the ICS structure as appropriate. The ERP allows for scalability, rapid escalation, or de-escalation, as needed.

6.3 LUMA Event Type

Events (natural, man-made, and technological) with the potential to affect the T&D System may be assigned an Event Type by the IC or designee. The IC is responsible for analyzing the severity and complexity of the incident, in collaboration with input from the Command and General Staff. This analysis helps identify resource requirements and the positions needed for an LER activation. In most cases, this analysis begins in the pre-event stage and continues every operational period throughout the service restoration stage for restoration events. During this analysis, the IC determines the Event Type. The Event Types are not directly tied to the establishment of Activation Levels, but they are frequently similar (see Appendix A).

The IC may also deem it necessary to escalate or de-escalate the Event Type depending on changes in circumstances or where actual conditions differ from expected conditions. The maximum Event Type and Activation Level are documented for recording purposes. The Event Type depends upon the analysis of the expected severity and complexity of an event and is drawn from the consideration of numerous factors including, but not limited to:

- Life safety
- Current and forecasted weather conditions
- Certainty and plausibility of weather forecasts and scenarios
- Size of the anticipated incident and expected impacts on T&D system operations
- Anticipated type and extent of potential or known damage
- Historical experience with other events
- Level of command anticipated or required to direct restoration efforts
- Current operational situation (number of outages, resources, supplies, etc.)
- Damage assessments
- Restoration priorities
- Forecasted or actual resource requirements
- Availability and logistical considerations of supplemental resources
- Forecasted operational tempo

Five Event Types have been established. Types 5 and 4 are considered Non-Emergency Events. They are restoration events managed through normal operations and/or as an isolated event that does not require LER activation unless escalation occurs.

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Types 1, 2, and 3 are Emergency Events, with Type 3 being the least severe and Type 1 representing catastrophic emergency conditions. Their descriptions are as follows:

6.3.1 Type 5: Non-Emergency Event – Normal Day-to-Day Operations

Type 5 events represent normal operations and are managed by the Operations Dispatch Organization, which is staffed at all hours. For small outages, Operations dispatches designated trouble resources to repair the outage. If, upon arrival, the Trouble Shooter determines additional resources are needed, a supervisor is assigned and secures additional line crews from the Field Operations organization.

6.3.2 Type 4: Non-Emergency Event – Heightened Alert

These events include system events that impact one or more districts. Type 4 events may be due to thunderstorms, high winds, frequent and/or severe lightning, or unanticipated events. These events are managed by LUMA's Senior VP for Operations. Control and management of the event remain centralized, in most cases, but may be decentralized to one or more ROCCs, depending on the event.

6.3.3 Type 3: High Alert Event - Moderate Regional Event

A Type 3 event may result in significant damage to a district and/or moderate damage to a region. The approach is to prepare by activating the ICS structure and opening one or more ROCCs. This type of event is coordinated locally through Incident Command meetings/conference calls to plan pre-event activities, restoration activities during the event, and post-event demobilization.

6.3.4 Type 2: Emergency Conditions

A Type 2 event is a severe event that may result in significant damage to the electrical transmission and distribution system in a region or moderate damage across the entire island. This is a full implementation of ICS, and most employees are assigned shifts and schedules aligned with their roles within this ERP.

6.3.5 Type 1: Catastrophic Emergency

A Type 1 event is a catastrophic event that likely results in significant damage to the electrical transmission and distribution system and/or a widespread outage. Type 1 events are rare but are usually forecast in advance. This event calls for the full implementation of ICS, with Level 1 activation in most cases. Employees are assigned shifts and scheduled based on their role in the ERP. The LEOC and all ROCCs are activated and in use.

Additional details regarding Event Types related to electrical outages can be found in Annex A — Major Outage Restoration Annex, Section 7.2.

6.4 LUMA Activation Level

The LER operates across five activation levels, increasing intensity from Level 5 to Level 1, with Level 1 being the highest and most resource-intensive (see Appendix A). The Activation Levels may increase or decrease in scale due to the complexity of the incident. The maximum escalation of the Activation Level is

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documented for recording purposes. The IC determines the Activation Level and resources required to activate it.

6.4.1 Level 5: Normal Operations

Daily operations are being performed across the organization. Staff perform day-to-day routine assignments and maintain situational awareness by observing the changing and predicted weather conditions and the news for any event that may adversely affect operations.

6.4.2 Level 4: Partial Activation

Conditions are developing (e.g., severe weather such as torrential rain or a tropical weather system) that could pose a risk to the T&D System. Therefore, heightened situational awareness and monitoring are in place, and communication is more frequent. Partial LER activation is possible with only the necessary positions: IC, Public Information Officer (PIO), and Liaison Officer (LNO). Internal conference calls may be scheduled regarding preparation for a future weather event. This can also indicate an isolated non-weather incident at a LUMA facility or another property. The LEOC may be opened and used part-time or full-time if deemed beneficial to support response efforts.

6.4.3 Level 3: Moderate Activation

Some day-to-day tasks and operations may be suspended or redirected. Mobilization of internal resources and partial acquisition/mobilization of external resources is considered. Incident Command is established with the necessary positions and may depend on the activation of, and impacts on, one or more ROCCs. The LEOC is likely open and in use, at least part-time or full-time, if deemed beneficial for supporting response efforts.

Institutional knowledge, system performance metrics, and forecast confidence levels are used to determine a pre-event approach. Emergency response communication protocols are activated in the direction of the PIO, with notifications being coordinated by activated staff to LPE Customers, Municipal, Regulatory, and Elected Officials, and LUMA staff. Regulatory notifications/reporting and internal reporting, including IAPs, are developed/submitted.

6.4.4 Level 2: Large Activation

Emergency event conditions are imminent and may significantly impact LUMA operations. If the conditions are due to a severe forecasted weather event, ROCCs are already activated, and the full ICS structure may be activated at the LEOC to support response and restoration activities. Conference calls and meetings are conducted to coordinate response activities, and operational period briefings are conducted at the beginning of each operational period. It is possible that mutual aid is requested, and agreements are activated. Emergency response communication protocols are activated, including Public Service Announcements (PSAs), the online Outage Center, social media, e-mail/call blast messages, etc. Government of Puerto Rico and Federal-level coordination may be required with assigned interagency coordinators and liaisons, as appropriate.

6.4.5 Level 1: Full Activation

Emergency conditions are imminent. These will likely cause, or have already caused, a catastrophic impact. The ROCCs are activated in response. Additionally, the full LER structure is activated at the LEOC to

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support response and restoration activities. This represents a full implementation of ICS. Consequently, most employees are assigned shifts and scheduled according to their ICS role.

Resources are needed, prompting a mutual aid request, potentially activating all agreements. Conference calls and meetings are conducted to coordinate response activities, and operational period briefings are conducted at the beginning of each operational period. All emergency response communication protocols are activated, including those listed under Level 2 activation. The Government of Puerto Rico and federal-level coordination is likely required, with Liaisons assigned, as appropriate.

Advance notice may be given of severe weather threats, such as Category 1-5 hurricanes. Still, events such as earthquakes may be immediately activated at Level 1 based on the earthquake's severity and the level of system impact.

Table 9 provides a summary of the key activities that are associated with each Activation Level.

Table 9: Activation Level Key Activities.

Activation Level	Normal Operations (Level 5)	Partial Activation (Level 4)	Normal Activation (Level 3)	Large Activation (Level 2)	Full Activation (Level 1)
Situational awareness of resources	Y	Y	Y	Y	Y
Activation of the LER		P	Y	Y	Y
Use of the LEOC		P	P	Y	Y
Mobilization of resources		P	P	Y	Y
Notifications to stakeholders		P	Y	Y	Y
Government of Puerto Rico and/or Federal Assistance Needed				P	Y
Y – Yes / P – Probable					

6.5 PREMB Event Classification

While LUMA maintains Event Types and Activation Levels, PREMB also has established incident levels (the equivalent of LUMA types) and EOC activation levels. To reduce confusion and aid in the alignment of response and restoration efforts, each EOC Activation Level and event/incident type has been aligned between LUMA and PREMB.

The scope and scale of the Government of Puerto Rico's support depend on the incident's impacts, scope, and complexity. PREMB classifies events using the nomenclature 'incident level' (PREMB & DPS, 2023).

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PREMB's incident levels align with FEMA's and refer to the level at which PREMB employs the resources of the Government of Puerto Rico to achieve jointly developed incident objectives.

Incident levels classify incidents based on their actual or anticipated impact, size, and complexity as well as the PREMB assistance required. The PREMB Commissioner, PREMB Deputy Commissioner, and Secretary of the Department of Public Safety coordinate with the Governor to designate incident levels and adjust designations as the magnitude and complexity of the incident change.

6.5.1 Level III: Minor Incidents

- A disaster that, due to its severity, size, location, and actual or potential impact on public health, welfare, and infrastructure, requires a moderate amount of Government of Puerto Rico support.
- A disaster requiring maximum recovery efforts and minimal response efforts, which existing PREMB resources can meet.
- A disaster requiring coordination among the involved Government of Puerto Rico and local entities due to minimal to average levels of damage.
- PREMB assistance may be limited to the activation of only one or two Emergency Support Function (ESF) primary agencies.

6.5.2 Level II: Moderate to Major Incidents

- A disaster that, due to its severity, size, location, and actual or potential impact on public health, welfare, and infrastructure, requires a high amount of direct Government of Puerto Rico assistance for response and recovery efforts.
- A disaster requires elevated coordination among PREMB and the whole community entities due to the moderate scale and breadth of damage.
- Significant involvement of PREMB, other Government of Puerto Rico agencies, and ESF supporting agencies is required to activate the EOC, and possible deployment of initial response resources is required to support requirements.

6.5.3 Level I: Catastrophic Incidents

- A disaster resulting in mass casualties, extraordinary levels of damage, or disruptions that severely affect the population, infrastructure, environment, economy, public morale, and/or government functions.
- A disaster of such magnitude that the available resources in place for the response are completely overwhelmed or broken at the local, municipality, and commonwealth levels.
- A disaster has occurred. Its severity, size, and location, along with its actual or potential impact on public health, welfare, and infrastructure, make it significant. This disaster requires a great amount of direct PREMB assistance for response and recovery efforts. However, the necessary support capabilities are lacking at any level of government.
- Requires extraordinary coordination among the Federal Government, the Government of Puerto Rico, and local entities, due to the massive levels and the breadth of the damage, the severity of the impact, and the multi-island scope of the incident.

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- The major involvement of the Government of Puerto Rico, all coordinating and primary Emergency Support Function (ESF-12) agencies, and possibly FEMA Region II, is needed to support the requirements of the affected jurisdictions.

6.6 Critical Infrastructure and Facilities Restoration Prioritization

LUMA understands the challenges and potential disruption to its customers' lives resulting from electrical outages. LUMA strives to restore power to all customers in the safest and most expedient manner possible.

In support, LUMA Operations utilizes a prioritization system during both normal and emergency operations, which provides the most efficient approach to restoring service after electrical outages. All outages are prioritized based on a variety of factors, including but not limited to Community Lifelines, customer type, number of affected customers, and safety-related outages.

The Cybersecurity and Infrastructure Security Agency (CISA), under Presidential Policy Directive 21 (PPD-21): Critical Infrastructure Security and Resilience, the Energy Sector is identified as uniquely critical because it provides an “enabling function” across all critical infrastructure sectors. Under this guidance, LUMA has developed a hierarchy of critical infrastructure and facilities, prioritized as Levels 1, 2, and 3, used to categorize various facilities based on the principles of Community Lifelines discussed in Section 5.

6.6.1 Critical Infrastructure

According to CISA, these critical infrastructure sectors have assets, systems, and networks, both physical and virtual, that are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, economic security, national public health or safety, or any combination thereof (CISA, 2020).

Throughout Puerto Rico, there are many critical infrastructure vulnerabilities. The loss of power to critical infrastructure, such as chemical and industrial plants, sewer lines, and water treatment and distribution systems, may result in severe environmental and public health hazards for the population. The identified critical infrastructure in Puerto Rico is listed in Appendix C.

6.6.2 Critical Facilities

Critical facilities include hospitals, fire stations, police stations, storage of critical records, and similar facilities (FEMA, 2020). These facilities should be given special consideration when formulating emergency response and restoration protocols; see Appendix C for a list of Critical Facilities. There are approximately 84 fire stations (FireCARES, 2022) and 13 jurisdictional regions in the Puerto Rico Police Department (United States, 2011). The Puerto Rico Housing Department certified 342 shelters across the 78 municipalities in Puerto Rico for 2026. LUMA leverages established relationships with partner agencies, such as Puerto Rico Aqueduct and Sewer Authority (PRASA) and the Puerto Rico Department of Health (PRDoH), to maintain visibility via access to healthcare coalition representatives and eventually the EMResource platform from PRDoH, Memorandum of Understanding (MOU) of the particular needs of these facilities prior to forecasted events.

Additionally, on February 5, 2024, the Department of Development and Economic Trade (DDEC, for its Spanish acronym) and LUMA Energy signed a Memorandum of Understanding on data sharing and confidentiality. The DDEC developed the Critical Facility Energy Support Tool (CFEST), which contains

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detailed information on critical facilities, including alternative energy sources, such as generators. This data is made available through the Puerto Rico Innovation and Technology Service (PRITS).

Level 1

Critical infrastructure and facilities identified as Level 1 provide services critical to the health and safety of the public and are tied to at least one of the eight (8) critical Community Lifelines. These facilities include, but are not limited to, the following:

- Hospitals and emergency medical facilities
- Emergency shelters, cooling centers, and rescue facilities
- Public safety entities: fire, police, and paramedics
- Emergency management offices and emergency operations centers
- Water pumping/lift stations and wastewater treatment plants
- Critical utility and communications facilities
- Fuel transfer and fuel loading facilities (ports)
- Mass transit (tunnels, bridges, ferry terminals, major rail facilities/rectifier stations)
- Airports
- Military bases
- Critical flood control structures

Level 2

Critical infrastructure and Level 2 facilities provide significant public services and may include some of the same facilities described in Level 1, depending on the event type. These are considered less critical by government agencies and include, but are not limited to, the following:

- Nursing homes and dialysis centers
- Facilities to support other critical government functions
- Prisons and correctional facilities
- Communications (radio, TV, etc.)

Level 3

Critical infrastructure and facilities identified as Level 3 facilities provide some public services. Depending on the event type, they may include some of the same types of facilities described in Level 2. They include, but are not limited to, the following:

- Event-specific concerns
- High-rise residential buildings
- Customers providing key products and services (food warehouse)

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- Managed accounts, large employers, and other key customers
- Prioritization of other government buildings, schools, and colleges

6.6.3 Restoration Prioritization

Outages are prioritized by considering safety conditions, type, the extent of damage to the system, critical Community Lifelines, customer type, and the number of affected customers. However, the designation of critical infrastructure or facilities at levels 1, 2, or 3 does not guarantee or prioritize their restoration after a major event. System Emergency Restoration Teams (SERTs) address emergency and life-threatening conditions reported as a priority, such as public safety hazards or downed wires.

Restorations occur in accordance with the LUMA Major Outage Event Metrics, as set forth in Appendix A of Annex A. LUMA also prioritizes actions that yield the greatest gain in overall T&D System stability and the greatest benefit to all customers.

7.0 Organization and Assignment of Responsibilities

7.1 LUMA Emergency Roster

The LER has been designed for a specific purpose. It aims to enable effective and efficient emergency management and coordination. This applies both internally and externally to LUMA. The LER achieves this through a management structure that is both flexible and standardized. Importantly, this structure is scalable to meet varying needs. Therefore, it can be used in all emergencies, from day-to-day operations to large-scale disasters. The LER required to implement the emergency procedures is specified by the organizational chart included in Appendix A. The LER is aligned with the NIMS and utilizes an ICS structure. The use of ICS establishes supervisory authority and formal reporting relationships that define clear communication channels between functional groups. This approach results in a reasonable span of control within each operational group.

Immediately upon declaration of an emergency, the required personnel on the LER shall be activated in the direction of the IC. At times, it may be desirable to staff the LEOC and place other personnel on stand-by prior to the actual event when possible. The number of personnel and mobilized resources depends on the size, scale, and complexity of the emergency event and is in accordance with the LUMA Major Outage Event Metrics found in Appendix A of Annex A. There are three defined levels to emergency response efforts. They are Strategic, Operational, and Tactical and can be defined as:

- **Strategic Level:** Provides LUMA's strategic guidance for response to the LEOC staff. At the strategic level, LUMA's CMC does not direct emergency responses or tactical operations.
- **Operational Level:** Develops LUMA's response to the emergency and oversees the implementation of the Incident Action Plan (IAP). This group forms the LUMA Emergency Operations Center (LEOC) staff and can include the ROCCs when activated as an Incident Management Team (IMT) under VP Operations.
- **Tactical Level:** Implements LUMA's response to the emergency and reports to the LEOC. This group forms the Regional Operations Command Centers (ROCCs) and includes the Systems

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Emergency Restoration Teams (SERTs), damage assessment teams, and others, such as Large Projects, and contractors.

The organizational charts for the LER can be referenced in Appendix A, along with Appendix B, Assignment of Responsibilities.

7.2 Agency Representatives

LUMA coordinates with multiple external agencies. Some of these external agencies have identified liaisons to coordinate restoral efforts through the LUMA LNO at the LEOC or through the LUMA PREMB Interagency Coordinator at the PREMB EOC. Some of these agencies include, but are not limited to:

- PRASA
- PREPA
- Genera-PR (not an agency but acts as agent of PREPA for generation)
- Puerto Rico National Guard
- Puerto Rico Telecommunications Regulatory Board
- Department of Energy
- FEMA
- Puerto Rico Department of Economic Development and Commerce (ESF-12)

7.3 Pre-Positioned Contracts

Restoring power after a Major Outage Event is a complex operation that must be completed quickly and safely. Expedient restoration requires significant logistical expertise, skilled line workers, and specialized equipment. Initial assistance from the mainland may be limited. Therefore, LUMA proactively plans and prepares by establishing pre-positioned contracts.

Pre-positioned contracts, also known as “advance contracts” or “standby contracts,” play a pivotal role in enhancing LUMA’s readiness and response capabilities during both steady-state operations and emergencies. These contracts, established before disaster events, enable LUMA to act swiftly and efficiently in the face of unexpected challenges, aligning FEMA’s recommendations to protect life, public health, safety, and property. These contracts may be for personnel, supplies, and/or equipment and may be required to mitigate, repair, or restore the system to normal operations. By securing agreements with pre-determined costs for critical services and goods, LUMA reduces the uncertainty and delays often encountered during emergency procurement processes. The advanced nature of these contracts ensures compliance with Federal procurement regulations, such as 2 CFR 200, while positioning LUMA to maximize cost-effectiveness and expedite disaster response efforts.

Currently, LUMA addresses several operational priorities through pre-positioned contracts, including Environmental, Debris, Waste, and Vegetation Management, Emergency Restoration Services, and Hazardous Spill Remediation. These contracts proved invaluable, enabling the LEOC to swiftly issue task orders and mobilize resources. This proactive approach aligns with LUMA’s operational priorities by

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ensuring critical services are available when needed most, supporting timely restoration efforts, and bolstering Puerto Rico's overall resilience. The strategy also incorporates detailed planning, including the submission of Contract Request Forms (CRFs) and Independent Cost Estimates (ICEs), ensuring readiness and compliance before the hurricane season.

During a LEOC activation, requests for contract "notice to proceed" are coordinated through the Logistics Section Chief and the IC. The resources obtained are then allocated between LUMA's ROCCs based on the incident's needs. The resources allocated to LUMA may be pre-staged, taking into account forecasted weather impacts and any predetermined minimum staffing requirements.

During the initial response stage, the Operations Section Chief reviews the system's status and, after conferring with the IC, coordinates with the Logistics Section Chief to reallocate resources as necessary. The reallocation of resources is based upon the assessments of damage, the extent and type of damage, the number of work assignments, the number of downed wires, the number of customers out of service, and the type of available resources (e.g., LUMA crews versus small groups of contractor crews), the predicted restoration times, and the difficulty of traveling within the service area. These contracts serve as a cornerstone for operational readiness, supporting LUMA's mission to maintain continuity of service and minimize the impact of disasters. As these efforts evolve, LUMA continues to refine its pre-positioned contract strategy, ensuring alignment with federal guidelines and improving overall emergency preparedness. This approach not only demonstrates LUMA's commitment to effective disaster management but also provides a robust framework for supporting Puerto Rico's recovery in the face of future emergencies.

7.4 Mutual Aid Assistance

Electric utilities affected by significant outages frequently call on other utilities, pursuant to mutual aid assistance agreements, for available assistance to help expedite restoration. Mutual aid from the mainland may be delayed when requested due to a major weather event that has strained transportation resources and/or facilities. The IC and General Staff may deem it appropriate to request resources from other utilities for Major Outage Events in accordance with the LUMA Major Outage Event Metrics, as set forth in Appendix A of Annex A. This is required for Type 1 Events but may also be used for other event types. The Operations Section Chief, in coordination with the P&I Section Chief, recommends to the IC the number and type of mutual assistance crews and equipment required. The IC or designee seeks approval from LUMA CMC when mutual aid assistance is required. Once a mutual aid request is approved, the Procurement Officer leads the drafting and processing of the mutual aid contracts to ensure the timely mobilization of resources.

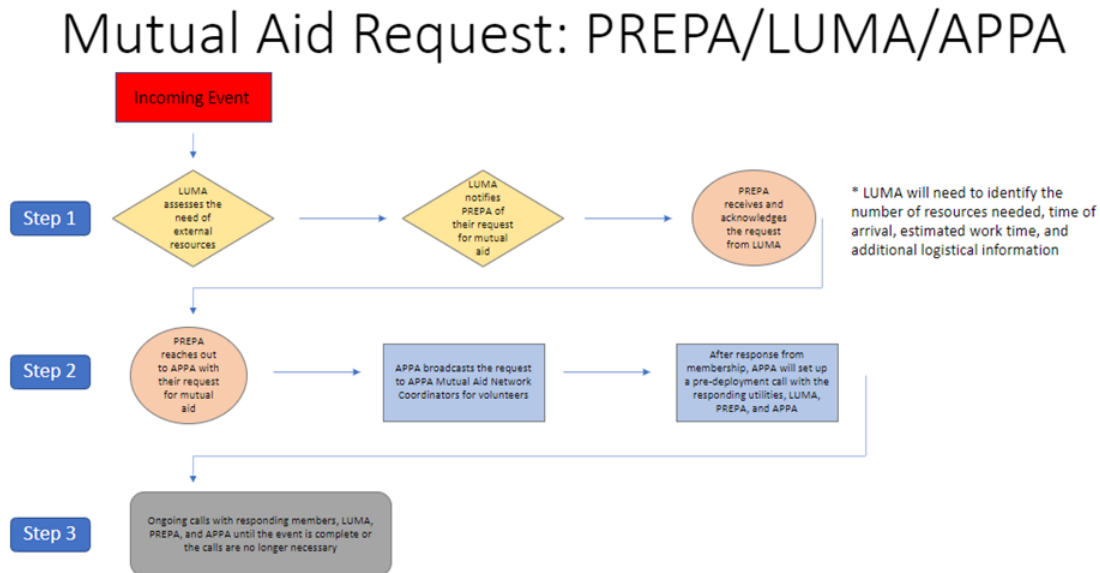
LUMA has access to Mutual Aid Agreements with the following parties:

1. American Public Association – (APPA) (request process depicted in Figure 9 below)
2. Edison Electric Institute – (EEI)

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Figure 9: Flowchart Describing the Process for Mutual Aid Agreement Notification with APPA.



8.0 Direction, Control, and Coordination

8.1 General

LUMA has established the LER for the successful management of impacts to the T&D System and major electrical outages caused by storms and other natural disasters, major equipment failure, and/or other emergencies that would have a direct effect on its customers. Annex A includes procedures adhered to throughout the organization whenever a failure of electrical service is deemed an Emergency Event.

Emergency response procedures are designed with a specific goal in mind. Whenever possible, they parallel normal operational procedures. This approach is being taken to minimize the need for specialized training or work practices. However, it's important to note that this is only done wherever it's possible. This ERP provides the framework for the systematic response of resources when emergencies arise. Annex A defines a set of processes and protocols for determining the appropriate level of response during major emergencies for:

- Restoration of electric service.
- Emergency response progress notification of applicable government agencies, customers, public, and employees.
- Response to official requests for specific incidents, events, or actions.

Note: LUMA consistently emphasizes public and employee safety as a top priority in all responses. During ERP activation, policy guidance is provided specifically by the CMC, which consists of LUMA senior executive leadership. Resource support and coordination are provided by the LEOC, down to the ROCCs and SERTs. During normal operations, the LUMA Emergency Preparedness (EP) Department supports

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emergency preparedness by developing standards and benchmarks, as well as delivering training and exercises. Additionally, emergency preparedness activities within LUMA include the acquisition and maintenance of response assets such as emergency equipment and materials, pre-positioned emergency contracts, and communications equipment.

8.2 Incident Command System Structure and Coordination

The ERP aligns with the principles of the NIMS and employs the ICS organizational structure, including the role of the IC. This ICS is scalable and provides flexibility to activate only the parts of the organization required to respond to the incident. Within the LER, there is an established chain of command that identifies a line of supervisory authority and formal reporting relationships within the organization.

This chain of command is used to communicate direction and maintain a reasonable span of control during LUMA's emergency response. Additionally, Command and General Staff are responsible for implementing the strategic response based on strategic objectives during an emergency, including, but not limited to:

- Plan the response to the emergency and oversee its implementation.
- Implement emergency procedures.
- Communicate strategic objectives.
- Provide support to the tactical teams.

8.3 Safety

LUMA prioritizes safety in all operations, recognizing it as a shared responsibility between employees and management. This commitment extends to regular activities and emergency events, fostering a culture of continuous improvement, compliance, and proactive risk management. The sense of urgency regarding restoration efforts, coupled with the suboptimal conditions that can arise after a disaster, increases the risks already inherent in operations. Therefore, safety officers increase surveillance and risk assessments to eliminate or mitigate at appropriate levels.

8.3.1 Safety Policies

LUMA's safety policies are designed to meet regulatory requirements and instill the best practices across all operational levels. Safety manuals and guidelines for regular operations and emergency events are contained in the Safety and Environment (HSE) manual, particularly in the health and occupational safety folder. It includes the following: General Safety, Job Hazard Analysis, Personal Protective Equipment, Respiratory Protection, Minimum Approach Distances, Hazzard Communication, Welding and Cutting, Helicopter Safety, Confined Space Entry, Fall Prevention and Protection, Ladders and Scaffolds, hearing conservation, Lockout and Tagout, Working with Electricity, Motor Vehicle Safety, Trenching and Excavating, Contractor Safety, Maintenance of Traffic, Mobile Equipment Safety.

The Manual also features several safety checklists and forms: Crane-Suspended Personnel Platform Pre-Lift Meeting Checklist, Job Hazard Analysis Form, Confined Space Entry Permit, Scaffold Inspection Checklist, Driver Tailboard Form, Trenching and Excavating Form, Critical Lift Checklist, Crane Suspended Personnel Platform Trial Form and Checklist.

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8.3.2 Safety Training

LUMA provides comprehensive training programs to ensure employee preparedness and adherence to safety protocols:

- General Safety Orientation: Conducted upon hiring or assignment to a new role, covering the HSE Manual and emergency response protocols.
- Ongoing Training: Offered when new procedures, equipment, or hazards are introduced, and after incidents to reinforce safety measures.
- Specialized Training: Focused on high-risk activities like confined space entry, vehicle operations, and hazardous substance handling.

8.3.3 Incident Reporting and Accountability

LUMA adheres to strict reporting procedures for safety incidents, in accordance with the standards outlined in the HSE Manual and the Major Outage Event Metrics (Appendix A of Annex A). Incident data is used to identify risks, refine procedures, and enhance training programs. Incidents are reported in the Intalex application and shared on the WebEOC platform.

8.3.4 Telematics

Telematics technology plays a key role in LUMA's safety initiatives, particularly in vehicle operations. This system integrates IT and communications to collect, analyze, and act on real-time data from vehicles, enhancing both safety and operational efficiency.

- Real-Time Monitoring: Tracks vehicle location, engine diagnostics, and driver behavior. Dual-facing AI dashcams capture video data to monitor driving behavior. Employees must identify themselves via facial recognition when entering telematics-equipped vehicles. Tampering with or disabling the system is prohibited.
- In-Cabin Alerts: Drivers receive real-time feedback for unsafe behaviors, such as speeding or hard braking.
- Incident Recording: Video recordings provide insights into accidents, helping to identify root causes and exonerate drivers when appropriate.
- Preventive Maintenance: Tracks odometer readings and engine fault codes to schedule timely maintenance.

Data collected through Telematics is used to improve driver safety through coaching and mentoring, support incident investigations and protect employees in non-fault cases, comply with safety regulations for employees working alone or in isolation, and recognize and reward safe driving behaviors. This program includes a Telematics Policy and a training course for all LUMA employees available through Workday.

8.4 WebEOC

As of 2024, LUMA acquired WebEOC, a cloud-based platform designed to help agencies and organizations maintain a common operating picture during critical events while delivering powerful data and process workflows to expedite or automate routine tasks.

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LUMA has been able to tailor boards to the needs and type of operations conducted during response operations. These boards allow for situational awareness to be maintained across all sections of the LEOC and equally with the ROCCS and its subordinate subcomponents. Additionally, WebEOC is used by PREMB, PRDoH, and FEMA to facilitate the exchange of information and reports as appropriate and as agreed upon during declared emergencies.

9.0 Information Collection, Analysis, and Dissemination

Both internal and external stakeholders require timely and accurate information as an essential tool. Every employee engaged in an emergency event has an obligation to provide information by communicating frequent updates to supervisors, maintaining accurate data in systems, and following up on information requests from internal and external stakeholders.

Operational information and situational intelligence are management functions that focus on the following three primary event areas: situation status, resource status, and anticipated Event Type. Vital records with operational information and situational intelligence are protected from the effects of a disaster to the maximum extent feasible. Should records be damaged during an emergency, professional assistance to preserve and restore them will be sought as soon as possible.

Internal and external stakeholder audiences include:

- Government of Puerto Rico and local government officials
- Customers
- General public
- Media outlets
- CMC
- LEOC, ROCC, and SERT staff
- Senior LUMA officials, directors, and managers
- LUMA employees
- PREB
- Puerto Rico Public-Private Partnerships Authority (P3A)

Depending upon the nature of the emergency event, essential elements of information may include:

- Weather predictions
- Severity of impact
- Area of impact
- Damage assessment

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- Electric transmission and distribution system operational status
- Impact on critical infrastructure
- Outages related to critical Community Lifelines
- Outages and jobs in Outage Management System
- Operational objectives
- Resource status (e.g., requested, acquired, received (onsite), working, released)

To support emergency event planning and management, tactical operations, coordination efforts, and other functions, information is disseminated using a variety of methods, including but not limited to:

- Presentations and briefings during operational period briefings
- Incident Action Plan IAP planning meetings
- IAPs
- Situation Reports (SitReps)
- System Status Reports

9.1 Reporting

Several reports and documents for both internal and external use are generated to facilitate and record the response to an emergency. The reports tie back to the process in the ERP. The WebEOC platform facilitates the assembly, distribution, and filing of reports and documents.

9.1.1 Internal Reports and Documentation

Incident Action Plan

The incident action planning process is used for all incidents involving the activation of the LEOC. The “Planning P” is a tool for applying the principle of IAP. An IAP provides a coherent means of communicating the overall incident objectives across both operational and support activities.

A formal, incident-specific IAP may be necessary to support First Responders and distribute current information quickly across the organization and external agencies, supporting the incident response effort. An IAP provides clear direction and includes a comprehensive listing of the tactics, resources, and support needed to accomplish the objectives.

Damage Assessment Reports

Damage Assessment Reports are submitted once assessments have been completed in the affected areas. The Damage Assessment Branch within the LEOC is responsible for submitting damage assessment reports to the P&I and Operations Section Chiefs to support response efforts.

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Safety Incident Report

The Safety Officer (SOFR) is required to submit a Safety Incident Report upon learning of any safety incident throughout the response and restoration efforts. Safety reports are to be submitted via the LUMA HSE safety management platform (Intelix) and shared with the IC and other Command and General staff.

LEOC Reports

When the LER is activated, the CMC will ask for a periodic situational awareness report. The reports are prepared by the P&I Section in collaboration with other Command & General Staff.

Final Event Reports

For emergencies classified as Type 1 or 2 events, a Final Event Report is completed and submitted to the LUMA IC within 30 days of the LEOC's demobilization. On certain occasions, it may be requested to prepare and submit a Final Event Report for Type 3 events. The P&I Section Chief drafts and submits the Final Event Report to the IC with a copy to the EP Department to supplement the AAR. It is the IC's prerogative to share it with the CMC.

9.1.2 Regulatory-Driven Reports and Documentation

Under the terms of the T&D OMA, LUMA is required to provide such appropriate notification to the PREB and P3A of an Emergency (as defined on the T&D OMA) as is necessary throughout an Emergency Event Report) including notifications issued upon LUMA receiving knowledge of the Emergency and when an Emergency has ended. When the LEOC is activated for an Outage Event (OE), as a Type 4 Event, reporting will follow the T&D OMA requirement. All reporting activities described below meet the requirements of an Emergency and a Major Outage Event under the terms of the T&D OMA.

The P&I Section is responsible for documentation and reports related to this section. Depending on the Event Stage, reports are submitted to PREB and P3A, and as a courtesy to PREMB, and partner agencies via the LEOC LNO. For a description of the event stages, refer to Sections 4.3 and 5.1 of Annex A. Reports will be submitted in accordance with the Major Outage Event Metrics found in Appendix A of Annex A.

Pre-Event Stage Reports (for Events anticipated to reach Type 1, 2, or 3)

During the pre-event stage, Emergency Event Reports shall be submitted at a minimum once daily. Depending on the nature of the event and information available at the time of reporting, Emergency Event Reports during the pre-event stage may contain, but are not limited to, the following information:

- Date and time of the report
- Current Event Type and Activation Level
- Potential number of customer outages
- Number of internal resources available
- Number of external resources available
- Weather forecasting and monitoring information

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- Pre-event communications with the public, municipal contacts, and elected officials (describing communication methods)
- Pre-event notifications with PREB, P3A, PREMB, critical facilities (describing communication methods), and those with power-dependent medical needs
- Resource readiness (indicating actions taken to ensure availability of crews and material resources, indicating type and quantity of available crews)
- Challenges anticipated or encountered in preparation for the anticipated emergency

Initial Response Stage Reports

During the initial response stage, Emergency Event Reports shall be submitted at a minimum of four times daily, unless otherwise directed by the PREB and P3A. Depending on the nature of the event and information available at the time of reporting, Emergency Event Reports during the initial response stage may contain, but are not limited to, the following information:

- Date and time of the report.
- Weather forecasting and monitoring information
- Number of customer outages
- The service status of LPE Customers and Critical Facilities, if known
- Status of generation
- Resource readiness (indicating actions taken to ensure availability of crews and material resources, indicating type and quantity of available crews)
- Observed challenges in restoration activities
- Status of the preliminary damage assessment
- Applicable ETR (see Tables 14 and 15 of Major Outage Restoration, Annex A).
- Communications with the public, municipal contacts, and elected officials (describing communication methods)

Restoration Stage Reports

During the restoration stage, Emergency Event Reports shall be submitted at a minimum of four times daily, unless otherwise directed by the PREB and P3A. During the restoration stage (for Type 1, 2, or 3 Events), Emergency Event Reports include information on emergency conditions and restoration performance for each affected region, similar to that in the Initial Response.

Additionally, LUMA will provide daily updates on the estimated time of restoration (ETRs) during the restoration stage, (refer to Tables 14 and 15 of Major Outage Restoration, Annex A). ETRs are reported in one or more of the following ways:

- LUMA Emergency Event Reports
- Via telephone call from the contact center representative

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- LUMA's outage central website
- Appropriate media outreach
- LUMA Interagency Coordinators (Type 1 and 2 Events)

10.0 Communications

The Communications and Liaison functions (including interagency coordinators at PREMB EOCs) provide a variety of critical information to LUMA customers and government officials through a diverse set of communications resources, procedures, and interactive tools in advance of and immediately following an emergency event. The information ranges from pre-event alert notifications and personal protective action recommendations to post-event updates on projected outage impacts and restoration activities. Processes and protocols for information dissemination are detailed in the Standard Operating Guide titled "Public Information Officer Communication".

10.1 Joint Information Center

A Joint Information Center (JIC) is either a physical or a "virtual" operation in which public information staff representing all agencies and organizations involved in incident management activities coordinate and disseminate official, timely, accurate, easy-to-understand, and consistent information to the public. NIMS includes procedures on the responsibilities and operations of JIC. The JIC includes PIOs from all agencies and organizations participating in incident management operations to ensure multi-agency and multi-jurisdiction coordination of all messages provided to the public. Depending on the geographical location and Event Type, a JIC may be organized by the government of Puerto Rico, and LUMA would participate.

10.2 Communications with Customer

10.2.1 Notifications

During an incident, communication with customers becomes especially critical. Emergency communications may include alerts, warnings, and information not only from internal operations but external resources as well. These may include information about evacuation, curfews, and other protective measures, as well as response status, available assistance, and other matters that impact LUMA's response and recovery in accordance with the LUMA Major Outage Event Metrics, found in Appendix A of Annex A.

Well-conceived and effectively delivered emergency messages can help ensure public safety, protect property, facilitate response efforts, elicit cooperation, and instill public confidence.

LUMA communicates information through a variety of methods, including, but not limited to:

- LUMA's website and Customer app, as available.
- Interactive Voice Response (IVR) messaging.
- News Media.

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10.2.2 Social media, including the use of X (formerly Twitter), Facebook, and Instagram Critical Customers

Critical customers are defined as those who rely on electricity for their health or receive subsidies from a government-sponsored program. Customers who provide documentation certifying their eligibility for the pertinent subsidy under current laws are added to the critical customer database. A monthly review of the Life Preservation Equipment (LPE) customer database is conducted to timely notify rate beneficiaries of upcoming lapses in documentation that make them eligible. This monthly review serves as a force multiplier prior to an announced Type 1, 2, or 3 event, enabling proactive direct engagement with certain critical customers prior to emergencies. They must provide this documentation annually to stay on the list. These customers are coded into the Customer Care & Billing (CC&B) System and classified based on their needs and subsidies:

- **Elderly or Senior Customers:** This group includes customers who are aged 65 or older and may have specific vulnerabilities and receive a special rate. The senior rate is available to people aged 65 and over. All that is required from LUMA is that the person presents a valid government-issued photo ID. There is no re-certification process for elderly customers. Customers are encouraged to take advantage of available programs by contacting LUMA via the website, telephone, or by visiting a Customer Service Center.
- **Nutritional Assistance Program (PAN) Beneficiaries:** These customers are enrolled in the Nutritional Assistance Program and receive a Subsidized Residential Rate. Enrollment in the Subsidized Residential Rate depends on the customer presenting their PAN Program enrollment letter, which confirms that they are currently enrolled as a beneficiary of the PAN Program. The LUMA account must be in the PAN Program beneficiary's name. Each time the beneficiary renews their enrollment in the PAN Program, they must submit the updated PAN Program enrollment letter to remain enrolled in the Subsidized Residential Rate. An ADSEF certification is required for eligibility. No notification is sent to these customers to re-certify.
- **Life Preservation Equipment (LPE) Customers Subsidy beneficiaries:** These are customers who rely on electronic equipment for support, such as ventilators or dialysis machines. They require an electricity supply to sustain their vital medical equipment.

The CC&B System is configured to reflect customers enrolled in the LPE Subsidy Rate program. Enrollment in the subsidized rate is dependent on the customer submitting a qualification form signed by a physician and certified by the Puerto Rico Department of Health. In addition, Act 152 customers require certification by the Department of Family and a medical certification. Customers are now notified by letter when their subsidy is due for renewal. LPE customers are required to re-certify annually; however, all accounts retain the designation regardless of the recertification results.

Examples of qualified equipment are provided below:

- Apnea Monitor (Infant Monitor)
- Cuirass Respirator
- Positive Pressure Respirator
- Suction Machine
- Rocking Bed Respirator
- IV Feeding Machine

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- Tank Type Respirator

LUMA maintains an updated list of Critical Customers, particularly LPE customers, through a rigorous process that includes annual recertification. The customers must submit documentation certifying their eligibility under current subsidy laws, such as a qualification form signed by a physician for LPE clients and certified by the Puerto Rico Department of Health. The accuracy of the address list is upheld by:

- Annual submission of updated certification and qualification forms by LPE customers.
- Programming the Customer Care & Billing (CC&B) system to reflect any changes in customer enrollment, subsidies, or status.
- Keeping records for elderly, PAN beneficiaries, and LPE customers based on government-issued documents, such as valid photo IDs and enrollment letters.
- Conducting outbound calls 48 hours before a forecasted emergency to ensure the customer's contact details and needs are correct.
- Weekly data scans of all critical customer categories, performed to ensure the most up-to-date information—including contact details—is available in the event of an emergency.

These customers are of particular interest during an outage event. The indicator used in the System is "LRS tariff" or the applicable subsidy. This indicator is only added to customers who benefit from the Life Preservation Equipment Subsidy. Forty-eight hours prior to an emergency event, the LUMA Customer Experience Department initiates outbound telephone calls to LPE Customers. A detailed Standard Operating Procedure (SOP) now guides the management of these callouts. LUMA attempts to contact customers up to three times and/or leave a voicemail. The telephone messages are customized and contain event information and LUMA preparation actions. This information addresses potential power outages and provides recommended protective actions, including seeking assistance from local public safety officials and human service agencies, as necessary. This process, along with an example of the information provided and requested from customers, is detailed in the Standard Operating Guide (SOG) for contacting LUMA's Critical Services Customers.

For client protection, personalized calls are attempted at least three times for LPE customers. Voice messages are left if there's no answer, and additional needs raised by the customer are referred to the Customer Experience & Key Account Specialist. This ensures that customers' immediate concerns are addressed and relayed to the appropriate local agencies for additional assistance, thereby safeguarding their well-being during outages. The specialist, leveraging established relationships with municipalities, informs the local Municipal Office for the Management of Emergencies (OMME), or the appropriate agency, of the situation, without disclosing Health Insurance Portability and Accountability Act (HIPAA) protected information. This ensures that public safety officials and human service agencies are notified and can take necessary actions to assist these clients. The process involves:

- Notifying OMME about the unresponsive LPE customers to ensure local emergency officials can prioritize welfare checks or assistance.
- Follow-up coordination between LUMA, municipalities, and OMME to address potential safety or health risks associated with power outages for LPE clients.

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This communication mechanism ensures that even if LPE clients are unreachable, relevant public safety authorities are informed and can take action to protect these vulnerable customers. All of this is documented and tracked within the WebEOC board created for this process. The WebEOC board serves as the centralized platform for recording and monitoring each decision, contact attempt, outcome, and supporting evidence, ensuring the Energy Bureau can audit the entire process. Forty-eight (48) hours before the calling period begins, the list of individuals to be contacted is entered into the board. As calls are made, users can view real-time progress and outcomes (e.g., successful contact, no response, or removal). This documentation supports LUMA's obligation to report progress regularly, providing transparency and accountability throughout the process.

The information recorded in WebEOC also supports LUMA's periodic compliance filings, which are based on the documented evidence within WebEOC, ensuring accuracy, completeness, and regulatory compliance.

Customers are reminded that, despite their designation as an LPE customer, the design of T&D infrastructure will require restoring core transmission and critical facilities first. Their restoration, while a priority, will occur alongside the surrounding area, following system prioritization and safety guidelines.

Information regarding pre-event preparedness and post-event restoration activities is developed under the leadership of the PIO and approved by the IC prior to dissemination through communication platforms such as telephone, email, fax, and social media. In addition, this information is provided to news and media organizations for dissemination to the public.

10.2.3 Real-time Information

Under the direction of the PIO, the communications team reviews and updates LUMA's website to ensure PSAs are posted and that information is provided to customers in accordance with the LUMA Major Outage Event Metrics in Appendix A of Annex A. The Outage Map displays outage information when available. Outage information is provided geographically to include customers served, and customers impacted.

10.2.4 Contact Centers

LUMA operates four (4) Contact Centers across the island that serve as the frontline for fielding questions, issues, emergencies, and outages during major outages. The Contact Center Operations Coordinator readies the contact center advisor to manage the heightened call volume and address specific customer requirements related to the event. The Contact Center team swiftly and efficiently disseminates communication updates while ensuring uniform messaging across all phone agents. Contact center representatives to receive situational updates from the PIO and relay information. They handle inbound calls from various entities. These include public, residential and commercial customers, and law enforcement. They also receive calls from fire departments, other public safety agencies, and hotlines for critical facility customers. 911 centers' calls are programmed to jump to the front of the line if we have calls in the queue. Additionally, they communicate with municipal and elected officials.

At H-48 hours, the Customer Experience and Key Account Specialist makes the decision to activate the internal contingency process. Under this protocol, the Voice of Customer and Revenue Protection teams will provide additional support by assisting in handling customer calls. To ensure operational continuity, the offices of these supporting teams are equipped to replicate the Contact Center setup. All participating

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employees have full access to the necessary platforms, Genesys, LEX, CC&B, and ArcGIS, to enable efficient communication, visibility, reporting, and management of the emergency.

This process mobilizes approximately 55 to 60 additional employees to ensure that customer needs are addressed promptly, and service quality is maintained during high-demand periods. If volume warrants additional support, a pre-positioned contract to augment the workforce was awarded on August 26, 2025.

10.3 Communications with Government Officials

10.3.1 Notifications

During an emergency event, the PREMB interagency coordinators, based in the PREMB EOCs, coordinate and support emergency preparedness and response activities across the Government of Puerto Rico. LUMA Regional Interagency Coordinators (LRIACs), deployed to the PREMB EOCs, provide reports to government agency interagency coordinators or other government officials that contain detailed information on emergency conditions and restoration status for each affected region.

Interagency Coordinators of LUMA, Genera PR, PREPA, PRASA, DDEC, under ESF-12, and other agencies can be activated in the PREMB EOC during incident response. The activation of the LEOC may coincide with the PREMB EOC, although it is not a trigger for the LEOC activation. In the event of a PREMB EOC activation, the LUMA PREMB Interagency Coordinator will be requested by the PREMB EOC. The role of the LUMA PREMB Interagency Coordinator is to facilitate formal and informal two-way communication between LUMA and PREMB under the ICS structure.

10.3.2 LUMA Regional Interagency Coordinators

When PREMB Zone EOCs are activated, the LUMA LNO will activate the LRIACs. The primary role of an LRIAC is to be LUMA's point of contact in the PREMB Zone EOCs and to communicate regional emergency-related priorities to the LEOC. The LRIACs also assist the PREMB Zone EOCs in determining if regional T&D System emergencies or outages have been reported to the LUMA Contact Center and/or LEOC LNO. The LRIACs may be supported by a LUMA Regional Key Account Representative assigned to one of the ROCCs who has established steady-state relationships with mayors.

10.3.3 Meetings with Government of Puerto Rico Officials

Throughout the year, LUMA meets with officials from the Government of Puerto Rico, federal partners, and other stakeholders. Documentation of the exercises, workshops, and meetings, such as presentations, attendance lists, meeting minutes, action items, and statuses of identified action items, are shared.

When PREMB is activated, LUMA, Genera PR, and PREPA are co-located as part of the ESF-12 desk under the leadership and direction of the Puerto Rico Department of Economic Development and Commerce (DDEC, for its initials in Spanish) within the Central COE. ESF-12 (Energy), during emergencies, supports local, state, territorial, and federal government entities, and the private sector by coordinating capabilities, services, technical assistance, and engineering expertise. Under steady state, the ESF-12 electric utility Interagency Coordinators convene periodically to prioritize discussions and develop a shared calendar for participating in relevant training and exercises (e.g., the yearly FEMA-sponsored Readiness Initiative and LUMA's Mock Drill). This fosters collaboration among agencies. Constant communication among LUMA, Genera PR, and PREPA facilitates operational alignment and coordination.

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10.3.4 Communication with Municipal Officials

LUMA Key Accounts (KA) Representatives interact with the municipality's officials daily. LUMA initiates tracking and preparedness activities for forecasted emergency events 136 hours prior to impact, in accordance with Annex D, Appendix B. At the 48-hour mark, KA Representatives make initial calls to government officials, including municipal mayors or their designees, and partner agencies with critical facilities to share pertinent situational information. This information includes:

- Situational awareness for the affected municipality
- Emergency conditions and restoration updates
- Status of outages and restoration efforts, including assigned crews
- Priority down wire locations
- Impacted critical facilities

Communication with municipal officials continues daily through structured methods designed to ensure timely updates and efficient coordination. Region-specific conference calls take place at 11:00 a.m. each day. These calls align with the LUMA Emergency Operations Center (LEOC), ensuring that the information shared is both validated and up to date. Each call, led by the KA Representative and the ROCC Incident Commander or delegated operational staff, is designed to last no longer than 30 minutes.

Within this timeframe, each mayor is allotted a five-minute slot to report on emergency situations specific to their municipality.

In addition to these scheduled calls, KA Representatives maintain direct lines of communication with municipal officials and emergency managers through telephonic, electronic, or face-to-face interactions. These efforts aim to keep local governments informed about the evolving situation and the status of restoration.

The communication process is outlined in Annex G and supported by the one-pager distributed among partner agencies, as well as municipal officials titled "Communications with Municipalities in an Emergency" (Annex G, Appendix A). The information shared includes, but is not limited to, situational awareness information regarding the affected municipality, the status of emergency conditions, outage, and restoration information to include assigned crews, priority down wire locations, critical facilities impacted by the emergency event, and/or notification reports in accordance with the LUMA Major Outage Event Metrics (found in Appendix A of Annex A).

10.4 Operational Communications

10.4.1 Interoperability

Communications interoperability enables LUMA staff in the LEOC, ROCCs, and the SERTs to communicate within and across LUMA via voice, data, or video in real time, as needed and when authorized. Interoperability planning requires accounting for event response contingencies and challenges. LUMA incorporates interoperability plans to include standard operating guides (SOGs IAP), technology, training and exercises, and their utilization during emergency response and restoration operations. Communications and information systems are also designed to be flexible, reliable, and scalable.

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10.4.2 Incident Communications Plan

The IAP contains the Incident Communications Plan. The Incident Communications Plan is updated as needed and includes incident-specific contact information for the Command and General Staff positions and for the Division Commanders. Contact information may include telephone numbers (desk & cell) and a satellite phone (if applicable). The Incident Communications Plan is distributed to the Command, the General Staff, the Division Directors, and the Regional Interagency Coordinators as part of the IAP.

10.4.3 Communications Systems

Primary communications systems utilized during emergencies may include FirstNet First Responder Cellular networks, wired phone exchange systems, Voice Over IP systems (Ethernet), and VHF radio systems.

Backup systems are available for deployment in the event of issues with primary communication systems. These include rapid deployment of mobile cellular access points with satellite uplinks, portable satellite phones, and, upon request, a flying FirstNet cellular hotspot to cover areas without coverage. LUMA additionally works with PREMB, municipalities, and liaison agencies for consolidated communications when beneficial based on the circumstances of the emergency.

11.0 Finance and Procurement

11.1 Finance

The Finance Section handles emergency costs based on activation under a disaster declaration or without it, using specific project codes for time and cost tracking.

At the Pre-event and Emergency stages, the internal Project code 15N000XXX000 is used by administrative personnel to capture their time to support preparedness for the event. As the event progresses, the project code remains in use by employees to capture time and materials. These costs are consolidated into this project, however, impacting the specific employees' home cost centers.

Once a disaster declaration is promulgated by the President of the United States, the project code for LEOC, ROCCs, and administrative assistants (whose work is mostly not eligible for capitalization) will be 15E9000000.

Field personnel and ROCCs are assigned codes divided by region (San Juan, Bayamon, Caguas, Arecibo, Mayaguez and Ponce). Vendor CPA (Contract Payment Authorization) must be linked to the regional emergency response project where the service will be provided, or to the applicable project.

- Administrative Staff: Continue using the 15E90000000 Code (mostly not eligible for capitalization).
- Field Personnel and ROCCs: Assigned project codes specific to their region:
 - San Juan 15E900000001
 - Bayamón 15E900000002

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- Caguas 15E900000003
- Arecibo 15E900000004
- Mayagüez 15E900000005
- Ponce 15E900000006
- Vendor Contracts: CPA (Contract Payment Authorization) must be linked to the regional emergency response project where services are provided.

During the Demobilization Stage, project code 15E900000000 remains in use:

- Regional emergency response projects should no longer receive labor charges.
- LEOC, ROCCs, and administrative assistants will continue using the Emergency Response-General Project Code until demobilization is complete or directed otherwise.

At the demobilization stage, regional emergency response projects should no longer receive labor charges. LEOC, ROCCs, and administrative assistants working in emergency response continue using the Response-General project code until directed otherwise upon completion of demobilization.

11.2 Procurement

LUMA's Procurement Manual provides a clear picture of LUMA's procurement policies and procedures and guides the way LUMA must conduct the selection, award, and administration of contracts funded by Federal awards.

The overall objectives of the procurement policies are to minimize the risk of improper procurement and contracting, allow for free and open competition, and provide procurement policies and procedures that are easily understood and implemented in conjunction with LUMA's procurement policies and procedures.

However, in the case of public exigency or emergency, competitive solicitation may not be required if it would delay securing required resources or services, and the Emergency Procurement Procedures in LUMA's Procurement Manual may apply. In these cases, LUMA may need to perform the procurement in a non-competitive manner.

Use of the public exigency or emergency exception is only permissible during the actual demand or emergency circumstances and is subject to other requirements and conditions set forth in LUMA's Procurement Manual.

11.2.1 Emergency Procurements

Upon activation of the LER, the Emergency Procurement Procedures provide additional details on procurement processes. In the event of any conflict between the ERP and the Emergency Procurement Procedures, the Emergency Procurement Procedures take precedence.

1. Obtain from the CEO the procurement delegation of authorities for the emergency.
2. Procure leveraging Federal Fund rules during the emergency period.
3. Ensure underlying support requirements are communicated to vendors.

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4. Ensure appropriate coordination with regulatory agencies (P3A, OCPR, FOMB).
5. Designate the Procurement & Supply Chain remote team staff to specific types of emergency procurement process duties.
6. Tracking and reporting on emergency procurements to be prepared for leadership, as required, using the Procurement Tracker.
7. Upon deactivation of the LER, the Procurement & Supply Chain remote team is responsible for the continuity of the emergency contract process until appropriately closed out.

12.0 Advanced Planning, Training, and Exercises

12.1 Overview

A successful response to emergency events requires a Company-wide commitment to preparedness that is integrated into LUMA's daily operations, not just during emergency events. LUMA's Emergency Management program is designed to enhance disaster preparedness and response capabilities, resulting in a safer, more efficient restoration of service during emergencies. The program is based on a continuous cycle of plan development and plan-and-procedure exercises to ensure the plans and procedures are effective, as shown in Figure 10. This continuous emergency preparedness cycle lends itself to continuous improvement.

Figure 10: LUMA's Preparedness Cycle



Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, EP Department staff, and PREMB personnel; and maintaining up-to-date contact information for personnel and organizations that may assist in LUMA's restoration efforts.

Every employee is expected to participate in preparedness activities throughout the year, including planning, training, and exercise activities related to their assigned ERP role. Creating a culture of preparedness leads to operational excellence during ERP activations.

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12.2 Planning

This ERP is reviewed at least annually and revised as necessary. All Command and General Staff, departments, divisions, offices, and subject-matter/technical experts responsible for this ERP are required to review its contents and update the information to keep the ERP relevant.

The ERP is a living document, and revisions deemed necessary result from lessons learned during ERP activation(s) based on the AAR and IP, training and exercises, government agencies' requests, or best practices and/or adopted industry standards.

12.3 Training

The emergency preparedness process depends on constant and effective methods to refresh and reinforce skills in preparation for restoration events. The Multi-Year Training and Exercise Plan (MYTEP) is a key component of this process, as it establishes a structured, progressive training program aligned with LUMA's emergency preparedness objectives. LUMA provides ongoing training on best practices regarding the NRF, NIMS and ICS. The LUMA EP Department maintains the ERP-related training system and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities, and to support the safe and reasonably prompt completion of all required actions during ERP activations.

A large percentage of LUMA employees' ERP roles and responsibilities are either the same as or very similar to their normal, steady-state duties. LUMA provides position-specific training for personnel whose response and/or restoration responsibilities differ from tasks they normally perform on a regular basis. Upon hiring, employees are assigned a restoration role. LUMA strives to ensure that its employees are properly trained for their emergency-related assignments and ready to assist if restoration protocols are implemented. The Policy and Procedure for Emergency Preparedness Training outlines the required preparedness training for all LUMA employees. MYTEP ensures that training programs include critical topics such as ICS protocols, WebEOC operations, crisis communication, and emergency response procedures.

In addition to skill-based training directly related to their ERP assignment, the training includes ICS protocols for Command and General staff in the LEOC and ROCCs. ERP-related training reports are maintained by the EP Department, including the type of training and training dates for each participating employee.

Skills and role-based training include hands-on practice with the associated computer-based programs used in their ERP assignment. Other skill-based training includes, but is not limited to, emergency positions for damage assessment, debris removal, wire guard, low-voltage service crew, and customer contact center staff. MYTEP specifies a detailed training schedule for the next 36 months, incorporating annual ICS refresher courses, cybersecurity training, WebEOC exercises, and coordination drills to maintain operational readiness.

The Section Chiefs and Command Staff ensure that at least annual meetings are held by the Branch Directors, Group Managers, or Unit Leaders for employees assigned to their functional area who have a primary emergency assignment that differs from their steady-state position. The meetings focus on several key areas related to employees' primary emergency assignments. These include reviewing the processes for these assignments, assessing completion of related training, and discussing the required tasks and tools. The meetings also confirm that employees have been issued the necessary Personal Protective

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Equipment (PPE) to complete their assignments. Additionally, they review employees' obligations to report to work when activated and ensure that employees are aware of the notification methods. Training and exercises outlined in the MYTEP adhere to LUMA's policies on emergency training, as well as federal and state regulatory requirements, including FEMA's National Incident Management System (NIMS), the Homeland Security Exercise and Evaluation Program (HSEEP), the June 22, 2020, T&D OMA, and Puerto Rico Department of Public Safety (Act 20-2017, as amended).

Training on the ERP is conducted throughout the year. Training and exercises are planned and distributed in the MYTEP, which is updated regularly to reflect changes in PREB resolutions and orders. Certain employees also benefit from PREMB's training calendar and invitations from our partner agencies (i.e., FEMA, CISA). For more information, please refer to Annex H Preparedness Training.

12.4 Exercises

The LUMA exercise program follows guidelines from the Homeland Security Exercise and Evaluation Program (HSEEP), developed by FEMA. The HSEEP methodology is defined and implemented through seven exercise types, grouped into discussion-based and operations-based exercises.

MYTEP establishes a progressive exercise cycle, starting with discussion-based exercises (e.g., seminars and workshops) and advancing them to more complex operation-based exercises (e.g., drills, functional exercises, and full-scale exercises). Discussion-based exercises (including seminars, workshops, and tabletop exercises) are commonly used to familiarize exercise participants with current plans, policies, agreements, and procedures, and to develop new plans, policies, and procedures. Operations-based exercises (including drills and functional exercises) are used to validate and/ or evaluate plans, policies, procedures, and training; clarify roles and responsibilities, and identify resource gaps. Figure 11 on the following page displays all these exercises.

LUMA employs a variety of exercise types based on exercise goals and objectives. Discussion and operations-based exercises are conducted each year based on a schedule developed and updated by the LUMA EP Department. All training and exercises planned under the MYTEP align with LUMA's emergency preparedness priorities and regulatory requirements. One exercise held every year simulates communication with partner agencies. EP Department personnel participate in partner agencies' exercises to continue practicing response skills, plan reviews, share lessons learned and best practices, as well as strengthen partnerships.

The goal of conducting exercises is to enhance training, improve familiarization, evaluate and/or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

Exercises are specifically used for:

- Improving individual and overall organizational performance
- Improving coordination and communication
- Testing and validating policies, plans, procedures, training, and equipment
- Identifying gaps in resources (both personnel and equipment)
- Exercising the ICS principles and protocols

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- Identifying opportunities for improvement

Exercises are used to identify opportunities for improvement in a variety of areas, including staffing, planning, training, and equipment/ resources. An AAR/IP is developed after major exercises and real-world incidents to identify and prioritize opportunities for improvement and facilitate further development of action steps. When completed, these IP items are incorporated into the ERP and related response tools.

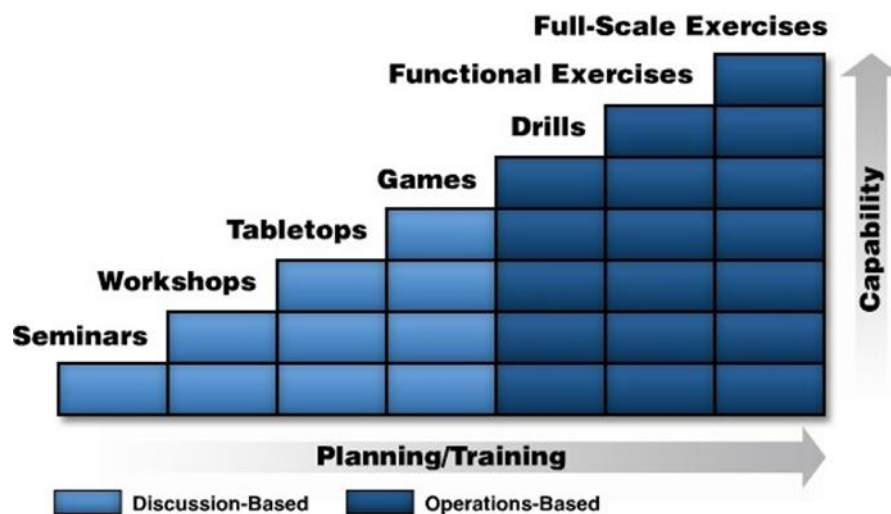
MYTEP ensures that exercises are systematically scheduled and executed over a multi-year period, integrating findings from AARs and IPs to continuously refine LUMA's emergency preparedness strategy.

LUMA schedules annual exercises for employees with assigned responsibilities during an emergency. ERP Type 2 and 1 emergency events, however, provide LUMA with similar opportunities to evaluate readiness, and are followed by conducting an AAR and the development of an IP. These real-world events provide valuable learning opportunities. The lessons from such events are incorporated into the ERP and used to identify and prioritize future planning, training, and exercise activities.

In addition to ERP-specific exercises, LUMA conducts discussion-based exercises to accomplish a variety of objectives. Table-top exercises are conducted to validate LUMA's response to an emergency event that could occur simultaneously with a loss of business continuity, a national emergency, or a pandemic incident.

Tabletop exercises, functional drills, and full-scale exercises planned within the MYTEP validate LUMA's ability to respond to emergency events, ensuring personnel are prepared for real-world incidents.

Figure 11: The Different Types of Exercises.



12.5 After-Action Review

Detailed performance assessments are vital for LUMA's continuous improvement. AARs have three main purposes: providing an opportunity for everyone involved in exercise or activation to:

1. Identify areas in the current emergency management plan that need improvement

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2. Make recommendations to improve it
3. Capture key lessons learned

For Type 1, 2, and 3 events, the LUMA EP Department organizes a meeting to review the emergency response details. The purpose of this after-action review is to identify the necessary improvements to the ERP, procedures, facilities, and resources. To ensure a cycle of continuous improvement, individuals with responsibilities within the LER are requested to fully participate in evaluating performance and in identifying functions and operations within the ERP that may need revision.

All observations, recommendations, and lessons learned shall be documented directly within the WebEOC AAR Board throughout the duration of the emergency or exercise. This allows real-time identification of improvement opportunities, operational challenges, and best practices as they arise, rather than waiting until the event concludes. These entries may include suggestions for procedural improvements, communication challenges, equipment or resource issues, and feedback coordination.

LEOC P&I shall maintain accurate logs recording significant operational activities, the commitment of resources, and other information relating to emergency response and recovery operations. Expenses incurred in carrying out emergency response operations may be recoverable. Hence, all service elements maintain records of personnel and equipment used, and of supplies consumed, during large-scale emergency operations.

Following the emergency event, the EP Department initiates the AAR process. Within the first 24-48 hours, the EP department assembles the AAR team, which consists of section chiefs, the IC, and the LEOC Manager, among others designated by the IC, to conduct an initial briefing outlining objectives and scope.

The EP Department will extract, and review entries made in the WebEOC AAR Board to compile feedback captured during the event. This data will serve as the foundation for subsequent AAR discussions.

Within the first week, following the completion of the Demobilization Stage, participants are requested to review and, if needed, supplement their WebEOC entries with any additional observations. The EP Department gathers input from all relevant personnel, partners, and stakeholders, collecting data, observations, and lessons learned. Ensuring thorough documentation of incident details, response actions, and outcomes.

In the second and third week, focused individual sessions are held to analyze collected information (follow up on the observations reporting in the AAR board) and recollect any additional relevant information. These are also used to identify strengths, weaknesses, opportunities for improvement, and areas of success.

Six weeks after the demobilization, the EP Department will produce and distribute a draft of the AAR report. The IC, and section chiefs will review and validate their findings, incorporating their input to ensure accuracy and comprehensiveness.

Two months after the demobilization, the AAR report will be approved and distributed to the IC, Deputy IC and Section Chiefs. A debrief meeting follows to discuss findings, share insights, and establish action items for improvement.

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Post-distribution, the implementation of corrective actions and improvements are monitored, and follow-up assessments to gauge the effectiveness of changes made are scheduled.

Table 10: After Action Review (AAR) Procedure.

Step #	Timing	Action	Responsible Party
1	During the emergency response	Maintain accurate logs that record significant operational activities, resource commitments, and other information related to emergency response and recovery operations. Enter real-time observations, recommendations, and lessons learned into the WebEOC AAR Board as they occur.	P&I All activated personnel
2	Emergency/exercise conclusion (24-48 h)	AAR team (section chiefs, and command staff) conduct an initial briefing to outline: • Objectives and scope • Identification of problems faced during the response • Logistical challenges • Communication breakdowns • Review and summarize entries from the WebEOC AAR Board.	EP Department, section chiefs, and command staff
3	Week one Post-event Conclusion	• Participants are to submit additional observations electronically to the EP Department. • The EP Department gathers input and collects data and observations; real-time adjustments are made during the response, and lessons learned.	EP Department, section chiefs, and command staff

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Step #	Timing	Action	Responsible Party
4	Weeks two and three Post event Conclusion	Participants verify and update their WebEOC AAR Board entries, adding any supplemental observations. The EP Department gathers and consolidates all inputs for analysis. It includes: • Comprehensive review of the entire response. • Analysis of strengths and weaknesses. • Identification of areas for improvement.	EP Department, section chiefs, and command staff
5	Six weeks Post Event Conclusion	• Compilation of incident reports. • Documentation of key findings. • Sharing of AAR draft with IC and section chiefs.	EP Department, IC, section chiefs, and command staff
6	Month two Post Event Conclusion	The AAR report will be approved and distributed to all stakeholders. A debrief meeting follows to discuss findings, share insights, and establish action items for improvement.	EP Department, section chiefs, and command staff
7	Post AAR Distribution	• Continuous improvement of emergency response protocols • Implementation of corrective actions and improvements is monitored, and follow-up assessments to gauge the effectiveness of changes made are scheduled. • Incorporation of lessons learned into training programs.	EP Department, section chiefs, and command staff

Emergency situations are inherently dynamic and subject to rapid changes. The effectiveness of these procedures relies on available resources and the nature of emergencies.

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12.6 Employee and Family Emergency Preparedness

To help employees and their families prepare for a prolonged outage, LUMA includes personal preparedness information and recommendations through training, electronic newsletters sent to all employees, and internal communications throughout the year. The information and recommendations can be based on communications from Ready.gov, RedCross.org, and other official sources that provide preparedness actions and additional information to benefit them and their families. Internal communications strategies that are utilized may include, but are not limited to:

- Providing employees with resources to create a family emergency plan
- Providing hurricane-specific preparedness and response information
- Providing employees with resources to prepare their homes for emergencies
- Providing employees with resources on how to assemble an emergency preparedness kit

To assist LUMA employees in developing their Family Emergency Plans and preparing for any disaster or emergency, LUMA created a guide to be distributed to employees with the pre-event notification. A Workday course on the subject is available and required for all employees. This combination of the just-in-time guide and the course helps employees create a simple, creative plan tailored to the family's specific needs, considering the threats in their area.

13.0 Plan Development and Maintenance

The ERP is a living document. As gaps become apparent, regulatory requirements change, problems emerge, or situations/environments change; this ERP is modified to remain current and useful. Each year, all LUMA departments and functions review their procedures, guidelines, checklists, and instructions relating to emergency response and revise them as necessary. This Base Plan and Annexes, along with a T&D Emergency Preparedness Report, are to be submitted to the Governor, PREB, and both Houses of the Legislative Assembly no later than May 31 on an annual basis.

Each functional area of the ERP is responsible for reviewing and updating its employee and stakeholder contacts. Elements of the review include:

- Community Lifeline organizations and critical facilities
- All utility personnel are assigned to emergency response
- Pre-positioned contractors
- Critical Customers and other special needs customers
- Human Service agencies
- Print and broadcast media
- Operators and managers of lodging facilities and restaurants
- Government of Puerto Rico and local elected officials

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- Law enforcement and other emergency response personnel
- Pertinent material and supply vendors
- Telephone and other third-party utility and Joint Use contacts

Any changes are communicated to the LUMA EP Department for inclusion in the next ERP update. In the event significant changes are made during the year, the EP Department provides a timely briefing for employees.

The EP Department reviews past events to ensure that the criteria and assumptions used as the basis for the ERP remain applicable. If other LUMA departments and functions need to make changes to the ERP, these proposed changes can be submitted to the EP Department for approval before being incorporated into the official ERP.

13.1 Revisions

A revision may require developing and distributing a newer version of this ERP, depending on the edits or the new distribution of software. The new version of the ERP should receive a new date and require new approval from LUMA officials.

13.2 Formal Plan Changes

Making formal changes to the LUMA ERP involves revising specific pages of the document. Changes are then sent to key employees, along with a summary or a track-changes version that details which pages have been changed.

The person who receives the change(s) is responsible for updating their copy of the ERP and recording the changes on a Record of Changes page at the front of the document to indicate that the changes have been incorporated.

The original document date does not need to change, and new signatures on the document do not need to be collected for formal ERP changes. However, they may be useful for tracking revisions.

14.0 Authorities and References

14.1 Authorities

- Homeland Security Act of 2002.
- The National Security Strategy.
- National Response Framework, as amended.
- National Disaster Recovery Framework, as amended.
- The Single Audit Act of 1984.
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended.

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- Housing and Economic Recovery Act of 2008.
- Emergency Management and Assistance, Code of Federal Regulations (CFR) 44.
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- Emergency Management Assistance Compact, Public Law 104-321.
- National Incident Management System (NIMS), October 2017.
- Homeland Security Presidential Directive (HSPD) 3: Homeland Security Advisory System, March 2002.
- Homeland Security Presidential Directive (HSPD) 5: Management of Domestic Incidents. February 2003.
- Presidential Policy Directive (PPD) 21: Critical Infrastructure Security and Resilience, February 2013.
- Presidential Policy Directive (PPD) 8: National Preparedness, March 2011.
- Executive Order 13347, Federal Register, Individuals with Disabilities in Emergency Preparedness.
- 13 CFR Part 123, Small Business Administration Disaster Loan Program.
- 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
- 44 CFR Part 206, Federal Disaster Assistance for Disasters Declared on or after November 23, 1988.
- Americans with Disabilities Act (ADA) of 1990.
- Developing and Maintaining Emergency Operations Plans: CPG 101: Version 2.0 November 2010
- Disaster Relief Appropriations Act of 2013.
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14.3 Terms

1. **After Action Report** – A document intended to capture observations of an exercise/event and make recommendations for post-exercise improvements. The final AAR and IP are published and distributed jointly as a single AAR/IP.
2. **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
3. **Business Continuity** – A set of activities that identifies potential impacts that threaten an organization and provides a framework for building resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, and value-creating activities.
4. **Capability** – The ability to achieve a specific outcome with an applicable combination of planning, organization, resources, and trained and exercised personnel. Emergency Management and Business Continuity capabilities are those needed collectively to prepare for, respond to, and recover from events that could impact LUMA's operational and business functions.
5. **Check-In** – The process necessary to receive and begin accounting for incoming external resources to enable them to participate in emergency restoration activities safely and effectively.
6. **Comprehensive Preparedness Guide 101** – Provides FEMA Guidance on fundamental planning and developing emergency operations plans (EOPs).
7. **Community Lifelines** – critical government and business functions essential to human health and safety or economic security.
8. **Crisis Management** – the process by which an organization deals with a disruptive and unexpected event that threatens to harm the organization or its stakeholders.
9. **Critical Facilities** – Critical facilities identified as Level 1, 2, or 3 facilities provide services that are critical to the health and safety of the public and are tied to at least one of the seven critical community lifelines. Examples include hospitals, fire/police stations, restoration staging areas, and communications facilities.
10. **Critical Infrastructure** – A list of customers for which the loss of electrical service would

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result in disruption of a critical public safety function is designated as “Critical Infrastructure”. Examples include wastewater treatment plants and transportation.

11. **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
12. **Emergency or Emergency Event** – Any outage event, as per the T&D OMA; declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, and/or operational capacity where LUMA has deemed it an Emergency and/or necessary to activate the LUMA Emergency Roster.
13. **Emergency Operations Center** – The physical locations at which coordination of information and resources to support incident management activities occurs.
14. **Emergency Response Plan** – A comprehensive plan that provides the concept of operations for response to emergency situations and other extraordinary events consistently and effectively.
15. **Emergency Support Functions** – (ESF-12) provide the structure for coordinating Federal interagency support for a federal response to an incident. They are mechanisms for grouping functions most frequently used to provide Federal support to States and Federal-to-Federal support, both for declared disasters and emergencies under the Stafford Act and for non-Stafford Act incidents.
16. **Geographical Information System** – A framework that is used to map the distribution system with land-based information.
17. **Homeland Security Exercise Evaluation Program** – A capabilities and performance-based exercise program that provides standardized policy, doctrine, and terminology for the design, development, conduct, and evaluation of homeland security exercises.
18. **Incident Action Plan** – Includes the overall incident objectives and strategies established by the Incident Commander. The Planning Section is responsible for developing and documenting the IAP.
19. **Incident Commander** – The individual appointed by LUMA’s executive management to have overall responsibility for LUMA’s response during an Emergency Event.
20. **Incident Command System** – Coordinated and collaborative incident management construct specifically designed and made a part of the National Incident Management System (NIMS) under the Federal Emergency Management Agency (FEMA).
21. **Incident Management Team (IMT)** – Focused group established to manage on-scene command, control, and coordination. Provides the essential leadership and structure needed to direct tactical resources and maintain accountability during short-duration events (ie, Type 4 or 5).
22. **Life Preserving Equipment Dependent Customers** – Also known as medical priority customers, means those customers who have provided documentation to LUMA of their medical conditions necessitating electric service.

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23. **LUMA Emergency Roster** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation. Includes those in the EOCs and those in the field.
24. **Major Outage Event** - An event as a result of which (i) at least two hundred and five thousand (205,000) T&D Customers are interrupted or (ii) at least one thousand five hundred (1,500) outage jobs for the T&D System are logged. In each case, within a twenty-four (24) hour period, and due to an act of God or, in case of a storm, a storm that is designated as such by the U.S. National Weather Service.
25. **Mutual Assistance Agreements** – Agreements between LUMA and other utilities, both inside and outside the state, that detail specifics for obtaining or lending resources, including, but not limited to, material, equipment, and trained personnel, when internal resources are not sufficient to ensure the safe and reasonably prompt restoration of service during an Emergency Event.
26. **Multi-Year Training and Exercise Plan (MYTEP)** - is a strategic document, often covering 3–5 years, that outlines an organization’s preparedness priorities, training goals, and exercise schedules.
27. **Outage Event** - An event as a result of which (i) at least twenty thousand five hundred (20,500) T&D Customers are interrupted or (ii) at least one hundred fifty (150) outage jobs for the T&D System are logged. In each case, within a twenty-four (24) hour period, and due to an act of God or, in case of a storm, a storm that is designated as such by the U.S. National Weather Service.
28. **Outage Management System** – System used to identify customer outages, assign trouble crews, and record outage event statistics.
29. **Pre-Event Stage** – The period between when LUMA first identifies an impending Emergency Event and when the Emergency Event first causes damage to the system, resulting in Service Interruptions.
30. **Risk Analysis** – The first step and process of identifying and analyzing defining characteristics and potential issues that may negatively impact organizations.
31. **Risk Assessment** – The process of identifying the risk analysis and making judgments of potential events that may impact the organization.
32. **Supervisory Control and Data Acquisition** – Electronic monitoring equipment that reports the status of distribution equipment.
33. **Service Interruption** – The loss of service to one or more customers connected to the electric distribution system.
34. **Service Restoration Stage** – Period of time between when an Emergency Event causes damage to the system (causing Service Interruptions), and the time when service is restored to all customers.

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Appendix A: LUMA ICS Principles

1.0 Event Types

Event Types	Characteristics
Type 5 Normal Operations	• A non-emergency restoration event. ◦ Response and restoration efforts last for less than 12 hours.
Type 4 Non-Emergency Event	• A non-emergency restoration event. ◦ Response and restoration efforts last for approx. 12-24-hour period. ◦ Locally assigned crews and contractors respond to any isolated incidents. • Preparation for an emergency that could lead to a restoration event described above. • An event with low or no media interest, spills or releases confined to the site, and public or employee health and safety is not threatened. • An understood and contained cybersecurity or terrorist threat.
Type 3 High Alert Event	• An emergency restoration event for approximately 70k to 350k customer interruptions (represents approximately 10-25% of LUMA customers). ◦ 10k or more outages at peak. ◦ Restoration, in most cases, is in 24-48 hours. • Preparation for an emergency that could result in a restoration event described above. • An event where at least 3 of the following are present: ◦ First aid treatment required for worker(s). ◦ Local and possible regional media interest. ◦ Public/employee health & safety or environment not threatened – perception of risk present. ◦ Spills and releases not contained on lease or potential extend beyond site/lease. • A cybersecurity or terrorist threat that is not fully understood or contained.

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Event Types	Characteristics
Type 2 Emergency Conditions Event	• An emergency restoration event for 350k to 700k customer interruptions (represents approximately 25-50% of LUMA customers). ◦ 25k or more outages at peak. ◦ Restoration, in most cases, is in a 10-day period or less. • Preparation for an emergency that could result in a restoration event described above. • An event where at least 3 of the following are present: ◦ Multiple workers require hospitalization. ◦ Regional & national media interest. ◦ Spill or release not contained, extends beyond lease. ◦ Public/employee health & safety or the environment could be jeopardized. • A cybersecurity or terrorist event that is impacting multiple ordinary business functions or activities for a known amount of time.
Type 1 Catastrophic Emergency	• An emergency restoration event for more than 700k customer interruptions (more than approximately half of all LUMA customers). ◦ 50k or more outages at peak. ◦ Restoration could take 10 days or longer. ◦ Will require an evaluation of mutual aid assistance. • Preparation for an emergency that could result in a restoration event described above. • An event where at least 3 of the following are present: ◦ Mass fatalities. ◦ National & international media interest. ◦ Spill or release off-site/not contained. ◦ Public/employee health & safety or environment jeopardized. • A cybersecurity or terrorist event that has the potential to impact multiple ordinary business functions or activities for an unknown amount of time.

Note: For additional details regarding Event Type characteristics, refer to Tables 4-8 of Annex A.

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2.0 Activation Levels

Event Level	Characteristics
Level 5 Normal Operations	• Normal day-to-day operations. • Teams utilize ERP principles to respond to events.
Level 4 Partial Activation	• An Incident Commander is named, and select positions may be activated. • Regular situational awareness updates are provided. • ROCCs, SERTs, and/or the LEOC may be open and used if deemed beneficial for response.
Level 3 Moderate Activation	• Command and General Staff are activated to support Branches and Units based on the need. • ROCCs, SERTs, and/or the LEOC are likely open and in use. • Incident Action Plans completed; Operational Period Briefings may be completed.
Level 2 Large Activation	• Command and General Staff, Branches, and Units are activated to coordinate the response. • The LEOC, ROCCs, and SERTs are open and in use. • Multiple shifts are in place to maintain response efforts. • Operational Period Briefings and Incident Action Plans are completed.
Level 1 Full Activation	• All roles on the LER are activated, including Operations and Control Center,s and any additional roles required to respond to specific events. • Multiple shifts are in place to maintain response efforts. • Significant contract resources are being utilized; mutual aid is being utilized if required. • The LEOC, ROCCs, and SERTs are open and in use. • Operational Period Briefings and Incident Action Plans are completed.

Note: For additional details regarding Activation Level characteristics, refer to Section 6.4 of the Base Plan.

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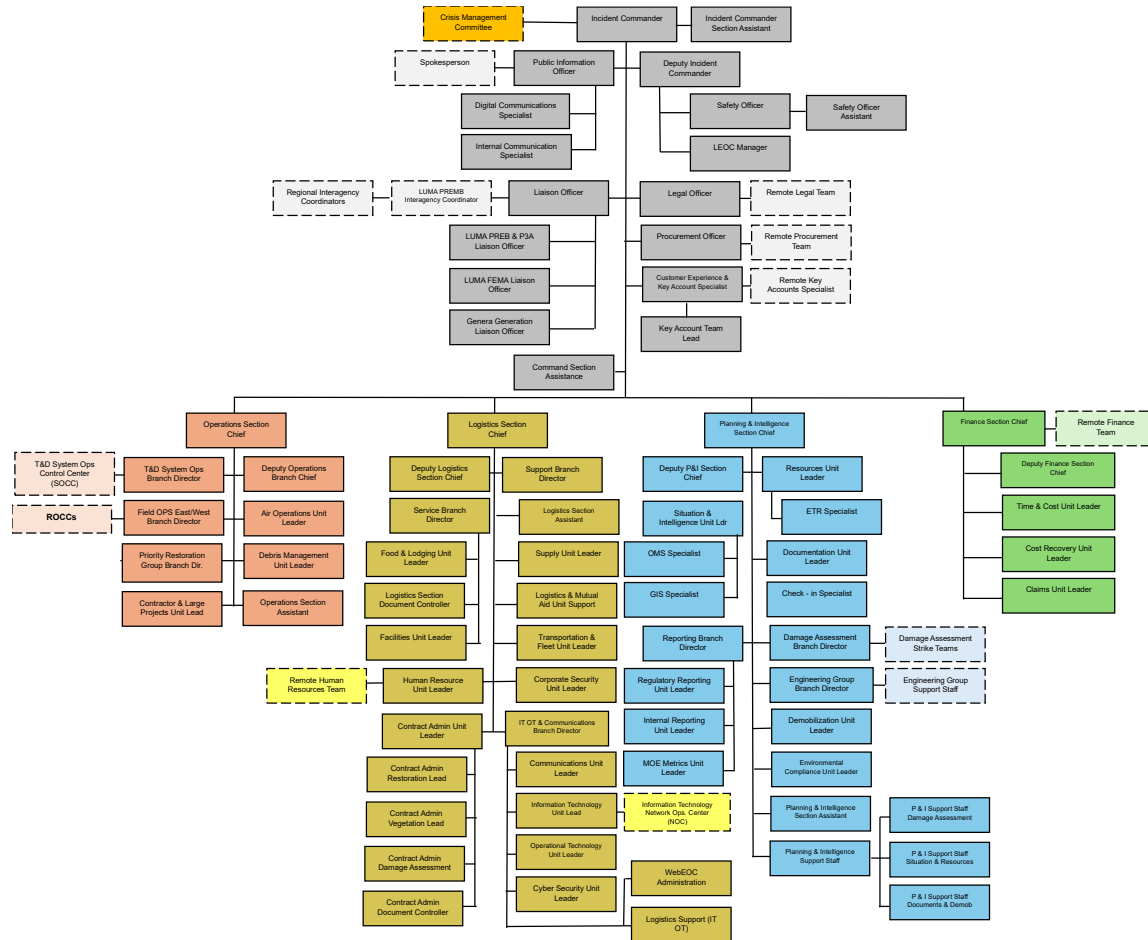
3.0 Crisis Management Committee Structure



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4.0 LEOC ICS Structure



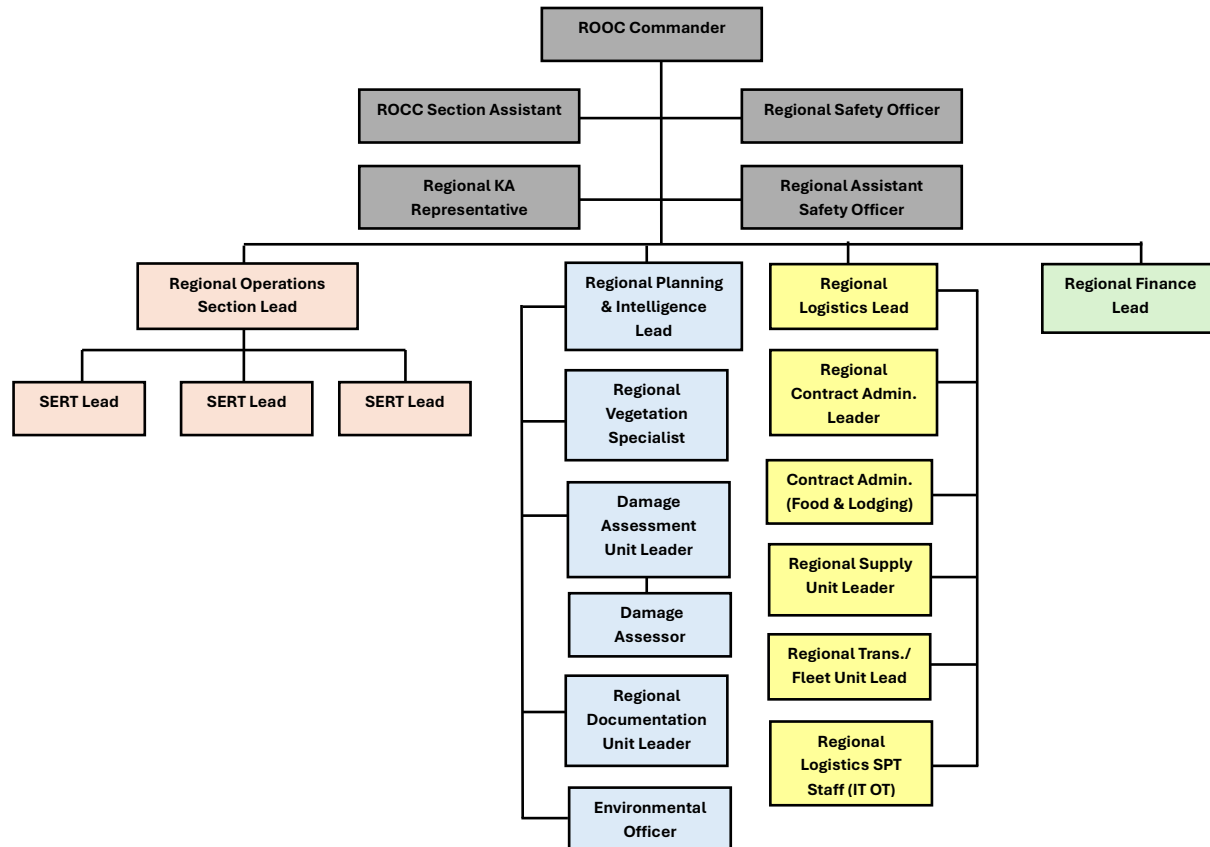
Notes: Additional support roles assigned for sections to staff branches, units, and teams. *Deputy roles can be used to maintain a span of control with sections.

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5.0 LUMA ICS Regional Command Structure

Refer to the Base ERP – Appendix A for the LEOC Command and General Staff Structure. Each of the ROCCs operates under a similar organizational structure. The SERTs may be aligned geographically within districts, assigned to specific sites, or focused on technical areas. The diagrams below are illustrative and may be modified based on the event's characteristics.



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Appendix B: Assignment of Responsibility

Role	Role Section	Role Description
Incident Commander	Command	The IC is responsible for directing and coordinating all aspects of the emergency response effort. The priorities of the IC are determined by the incident's extent, size, duration, and complexity, as well as the availability of resources. The IC could determine that an emergency condition exists for all or part of the system and invoke a scaled response and recovery actions, as needed. This determination enables the expeditious procurement of resources and the efficient allocation of existing assets. The primary responsibilities include, but are not limited to: • Exercise overall management of delegation, coordination, and support of the incident, activating the ERP as necessary. • Determine the event type associated with the incident and the level of staffing needed in the LEOC. • Activate the LER and the LEOC, as appropriate for the event type. • Lateral coordination with PREPA Genera PR and relevant stakeholders is needed for decision-making regarding when the responsibility of each agency may be affected. • Utilize information and damage assessments. • Determine the number of resources required to respond to an event, including internal, external, contract, mutual aid, etc., direct efforts to obtain the required number of resources throughout the event, and allocate available resources on a system-wide basis. • Ensure emergency communication protocols are implemented. • Oversee LEOC support activities, including routine coordination of conference calls with the command staff, section chiefs' positions, Federal, state, and municipal emergency management officials. • Implement strategic objectives from the CMC and provide restoration response status information to senior management and the LEOC. • Identify and mitigate adverse customer, regulatory, or other constituent sentiment and communicate resolution plans to the LEOC. • Obtain strategic direction from the CMC and maintain an open line of communication. • Ensure adequate and effective coordination among all functional areas involved in incident response.

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Role	Role Section	Role Description
		- Implement the ERP demobilization process, which includes the structured release of resources. - Implement post-event review processes, including any post-event outreach programs, and create after-action reviews, reports, and improvement plans.
Deputy Incident Commander	Command	The IC may have a Deputy Incident Commander (Deputy IC). Deputy ICs must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. The primary responsibilities include, but are not limited to: - Assist and serve as an advisor to the IC and General Staff as needed, providing information related to the internal functions of the LEOC to ensure compliance with operational emergency plans and procedures. - Oversee the LEOC Manager, the Safety Officer, and other positions assigned by the Incident Commander. - Assist in establishing appropriate staffing and activation levels for the LEOC, continuously monitoring organizational effectiveness, and ensuring any necessary modifications occur as required. - Ensure adequate and effective coordination among all functional areas involved in incident response.
Legal Officer	Command	The Legal Officer is responsible for monitoring and/or advising on all legal matters, commercial contracts, and agreements. The Legal Officer shall also ensure that the incident response efforts with the statutory and corporate governance practices and guidelines. The primary responsibilities include, but are not limited to: - Reviewing contractual agreements to ensure contractual liability risk is mitigated. - Commenting on formal communications from a legal perspective, including reviewing potential donations. - Provide guidance to incident leadership regarding corporate governance practices. - Assisting with incident investigation, particularly relating to third-party claims and damages.
Procurement Officer	Command	The Procurement Officer is responsible for administering the incident procurement process, managing financial matters pertaining to vendor contracts and agreements, and ensuring compliance with incident procurement policies. The primary responsibilities include, but are not limited to: Arrange for emergency accounts and coding for service contracts and purchases.

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Role	Role Section	Role Description
		• Provide administration, finance forms, and procedures for purchases. • Establish contracts with supply and contract vendors as required. • Finalize contracts and agreements and obtain signatures from appropriate approval authorities. • Maintain records of purchases and contracts. • Redact the mutual aid contract when additional assistance is required.
LEOC Manager	Command	The LEOC Manager is responsible for managing the LEOC facility and ensuring LEOC staff are supported during an incident. The LEOC Manager is also responsible for making certain the Situation Report, or Senior Leadership Briefing is completed at regular intervals and contains timely and accurate information. The primary responsibilities include, but are not limited to: • Ensure that the LEOC facility is properly equipped and prepared for activation at any given moment. • Help establish appropriate LEOC staffing levels and monitor organizational effectiveness. • Assist with responsibilities as requested by the IC. • Coordinate translation services, if possible. • Coordinate for any support for EOC system(s) as needed by LEOC staff. • Ensure that coordination among Sections is accomplished effectively. • In charge of section personnel activation via WebEOC, when approved by IC, until section assistants are activated.
Safety Officer	Command	The Safety Officer is responsible for coordinating the appropriate response to address work-related health and safety issues for all personnel responding to an emergency, including LUMA's contractors. All industrial-related injuries and illnesses must be reported in accordance with LUMA's safety procedures, which contain instructions for completing documentation associated with injuries and illnesses arising during work-related activities. The primary responsibilities of the position include, but are not limited to: • Support the mitigation of hazardous situations as identified. • Stop and prevent unsafe acts immediately when reported, leveraging telematics alerts as a prompt to review and change behaviors during activities that could compromise safety.

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Role	Role Section	Role Description
		- Communicate with employees and contractors regarding their responsibility to exercise emergency authority to prevent or stop unsafe acts when immediate action is required. - Review the Incident Action Plan (IAP) for safety implications and provide safety messages, considering insights and trends from telematics data for inclusion in the IAP, via WebEOC. - Assign Safety staff assistants qualified to evaluate special hazards. - Ensure adherence to all applicable workplace safety rules and policies during restoration. - Recommends measures for public safety, and the protection of LUMA employees (including LUMA contractors). - Allocates local Safety and Health personnel to affected branches, prioritizing locations flagged by telematics' trends for heightened safety risks. - Oversee and ensure an initial safety briefing is conducted with all arriving seconded, or contractor crews. Provide safety briefing documents each day during the restoration process to all LUMA employees, mutual aid personnel, and contractors. - Ensure prompt investigations occur following a significant safety near-miss or actual event, leveraging telematics. - Notify the Incident Commander of any significant safety events or conditions related to worker health and safety. - Additional responsibilities as assigned by the Incident Commander.
Assistant Safety Officer	Command	The Assistant Safety Officer (ASO) supports the Safety Officer in ensuring the safety and health of all response personnel, including contractors, by assisting in implementing LUMA's safety procedures. The ASO will monitor safety incident reports, and address safety concerns in the field, supporting SO's responsibilities and contributing to a proactive safety culture. The primary responsibilities include, but are not limited to: - Assists the SO in identifying and mitigating hazardous situations, using telematics data on trends to flag risks. - Acts as a point of contact for assigned ROCC safety personnel, communicating safety messages and coordinating safety actions as needed. - Supports the SO in monitoring compliance with workplace safety rules. - Help prepare safety briefing materials to address

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Role	Role Section	Role Description
		specific field safety concerns for daily briefings with LUMA and contractor crews. Maintains situational awareness via reports and safety messages using WebEOC. - Assists in investigations of safety near-misses or incidents. - Reports significant safety events or telematics alerts to the SO for further review and action. - Undertake other duties assigned by the SO and IC to support the incident response's overall safety. - Assists in reviewing the IAP safety implications and providing additional safety messages for the IAP.
Liaison Officer	Command	The Liaison Officer (LNO) serves as the primary point of contact for external representatives such as a Multi-Agency Coordination (MAC) Group, local government, and/or federal agencies, in accordance with the LUMA Major Outage Event Metrics, found in Appendix A of the Major Outage Event Restoration Annex (Annex A). The LNO coordinates the assignment of requested LUMA personnel to PREMB's EOC and the PREMB Regional Emergency Operations Centers (REOCs), and coordinates response and support activities with other government response agencies. LNO proactively solves conflicts and addresses issues that may occur between LUMA and other agencies. The LNO develops and fosters relationships with LNO partners and serves as the conduit to the IC upon the LEOC's activation. The primary responsibilities of the LNO are to effectively monitor, coordinate, and communicate with LNO stakeholders of participating organizations in support of the incident as it relates to Transmission and Distribution (T&D). This includes, but is not limited to: - Serve as the primary contact to the IC for LNO stakeholders during LEOC activations. - Serve as the primary point of contact for all LNO stakeholders who are not represented on the LER and ensure their concerns, input, objectives, and issues are effectively addressed by the response effort. - Maintain a list of assisting and cooperating agencies and Agency Representatives, including name and contact information. - Liaison for information sharing between the PREMB LUMA Regional Interagency Coordinators (LRIACs) and the LEOC. This position works directly with PREMB LRIACs to collect information on community

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Role	Role Section	Role Description
		and customer power outages. Periodic maintenance of contact lists for local emergency management and response personnel, which include, but are not limited to: PREMB, FEMA, Genera-PR, PREPA, PRASA, DDEC, DoE, PRNG, and other personnel.
LUMA PREB & P3A Liaison Officer	Command	The PREB & P3A Liaison Officer serves as the single point of contact for LUMA to the PREB and P3A. The PREB & P3A Liaison Officer serves on the LEOC, ensuring the PREB and P3A are kept abreast of any incidents, LUMA's response actions, anticipated response actions, and any other information requested by PREB and P3A. They work closely with LUMA LNO to ensure continuity of messaging about the information shared with those agencies. The primary responsibilities include, but are not limited to: - Serve as the liaison between LUMA, PREB, and P3A during an outage event. - Anticipate requests from PREB and P3A. - Provide the requested information and status updates at least four (4) times a day, unless directed otherwise by the PREB, regarding LUMA operations to PREB and P3A. - Ensure the unity of messaging between LUMA, PREB, and P3A. - Serve as the liaison for any Federal and/or state congressional-level requests for information. - Facilitate communication with the Governor's Office by providing reports, responding to information requests, and providing restoration updates during emergencies.
LUMA Generation Liaison Officer	Command	The LUMA Generation Liaison Officer (GLO) is responsible for liaising with the generation industry across the island. The GLO is normally located at the T&D System Operations Control Center (SOCC), relocating to the LEOC, when requested by the IC, and maintains current contact information for all generation companies contributing to the Transmission and Distribution system. The LUMA Generation Liaison Officer also coordinates assistance and resource involvement with the generation companies throughout an incident. They work closely with the LUMA LNO to ensure continuity of messaging in the information being shared with those organizations. The primary responsibilities include, but are not limited to:

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Role	Role Section	Role Description
		• Ensure an open communication channel between LUMA and generation industry contacts during an incident. • Maintain current contact information for all generation companies on the Island. • Facilitate requests for resources with generation contacts. • Ensure the messaging is consistent between LUMA and generation industry contacts.
LUMA FEMA Liaison Officer	Command	The FEMA Liaison Officer serves as the key point of contact for direct communication between LUMA and FEMA. The FEMA Liaison Officer serves on the LEOC and ensures that, in a federally declared emergency, FEMA is kept abreast of LUMA's response and restoration efforts, facilitating decisions such as the priority deployment of temporary generators to critical facilities. They work closely with the LUMA LNO to ensure continuity of messaging across the information shared among government agencies. The primary responsibilities include, but are not limited to: • Serve as the liaison between LUMA and FEMA within the LEOC during an event championing and strengthening Interagency Collaboration (FEMA, LUMA, COR3). • Coordinate response and representation from FEMA within LUMA's EOC. • Provide the requested information and status updates regarding LUMA response operations to FEMA, outside of interagency coordination, incorporating technology, data sharing, and analytics for live reporting. • Ensure the unity of messaging between LUMA and FEMA. • Provide support to LEOC Command and General Staff related to FEMA requests and coordination. • Provide clarity and streamline FEMA compliance processes while facilitating communications and exchange of information between LUMA and FEMA to comply with Stafford Act declaration requirements for disaster assistance. • Ensure proper handoff of damage assessment data by municipality to submit the Puerto Rico Initial Damage Assessment (PRIDA).
LUMA PREMB Interagency Coordinator	Command	The LUMA PREMB Interagency Coordinator serves as the single point of contact for the PREMB within LUMA. The LUMA PREMB Interagency Coordinator serves in the PREMB EOC to keep federal and local government agencies informed and

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Role	Role Section	Role Description
		speaks on behalf of LUMA at operational period briefings and in response to other requests for information. The position works closely with the LUMA LNO to ensure continuity of messaging and to keep the LEOC informed as to the information being shared in the PREMB EOC. The primary responsibilities include, but are not limited to: • Ensure an open communication channel between LUMA and PREMB during an outage event. • Provide the requested information and status updates regarding LUMA operations to PREMB. • Ensure the messaging is consistent from LUMA to PREMB. • When activated, work out of the PREMB EOC, and liaise with the LEOC and other government agency Interagency Coordinators. • Represents LUMA in the ESF-12 structure, which includes PREPA, Genera PR, PRASA, DDEC, among others.
Public Information Officer	Command	The Public Information Officer (PIO) is responsible for managing all communications related to incident information. Incident information such as customer interruptions, resource acquisitions, system damage, and restoration progress is managed in accordance with the communication protocols established by the LUMA CMC. The PIO and staff have overall responsibility for crafting response information to be disseminated to internal and external stakeholders upon IC approval, including media outlets, employees, customers, municipal officials, regulators, and other government representatives. Other responsibilities of the PIO include, but are not limited to: • Ensure coordination with PREPA and Genera PR PIOs for unity of message to all stakeholders. • Ensure the maintenance of contact lists, including print and electronic media contacts. • Ensure customer outage estimated times of restoration (ETRs) are broadcast across all available LUMA platforms. • Provide employees with timely, accurate information to support situational awareness. • Develop accurate, accessible, and timely information for use in press/media briefings. • Determine any limits on information releases according to the direction of the IC. • Obtain the IC's approval of news releases. • Conduct periodic media briefings and/or disseminate news releases to media outlets. • Arrange for tours and other interviews or briefings that

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Role	Role Section	Role Description
		may be required. • Monitor and forward media information that is useful to incident planning. • Maintain current information, summaries, and/or displays on the incident. • Make information about the incident available to incident personnel. • Ensure that all subordinate positions execute their specific duties and responsibilities.
Digital Communications Specialist	Command	The Digital Communications Specialist provides multiple channels for receiving responses from employees, customers, media, and other key stakeholders. The primary responsibilities include, but are not limited to: • Update the LUMA website with appropriate information related to the event. • Distribute appropriate safety, preparedness, and restoration information via various social media outlets as appropriate. • Monitor social media outlets and respond to inquiries. • Provide updates related to digital communication channels to the PIO as needed.
Internal Communications Specialist	Command	The Internal Communications Specialist is responsible for providing regular updates to LUMA employees through emails and postings regarding the incident and LUMA's response operations. The primary responsibilities include, but are not limited to: • Aid the PIO in crafting employee messages and distributing approved materials to employees at appropriate times. • Respond to employee inquiries about information related to the incident. • Provide updates to the PIO regarding employee issues as appropriate. • Ensure employee-focused communications are timely, accurate, and effective. • Coordinate with the Digital Communications Specialist to ensure messaging continuity.
Spokesperson	Command	The Spokesperson is responsible for representing LUMA in relation to media statements, press conferences, and press releases. The primary responsibilities include, but are not limited to: • Relaying messaging prepared by the PIO for release through media outlets.

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Role	Role Section	Role Description
		- Representing LUMA in cross-agency press conferences and media interviews. - Coordinating with other LUMA leaders to provide consistent response messaging in alignment with restoration priorities.
Customer Experience & Key Accounts Specialist	Command	The Customer Experience & Key Accounts Specialist represents the customer at the LEOC. The position monitors customer complaints and general overall customer feedback and satisfaction. The primary responsibilities include, but are not limited to: - Providing the IC with any impact on the customers in affected or non-affected areas. - Ensuring the Customer Experience teams are adequately staffed for the expected emergency, and staffing plans are made to ensure proper customer service throughout the incident. - Monitors and provides feedback to Command Staff that the information from the PIO and Communications team regarding emergency response efforts is communicated to our customers. - Oversees and provides feedback on LUMA's information supplied to Community Lifeline Customers and Life Preserving Equipment Dependent (LPE) customers to ensure the information is timely and accurate. - Provides guidance and direction to the Regional Key Accounts Representatives. - Through the Regional Key Accounts Representatives, engagement with municipalities outside of formal PREMB EOCs is monitored and managed. - Communicate resource requirements to municipalities with agreements with LUMA and any issues in mobilizing municipal resources to the appropriate teams for resolution through the Regional Key Accounts Representatives.
Key Accounts Team Lead	Command	The Key Account Team Lead supports the Customer Experience & Key Accounts Specialist by ensuring smooth operations and effective communication within the Key Accounts division. The role primarily involves overseeing the Regional Key Accounts Representatives and monitoring their requests to ensure they align with organizational goals and customer satisfaction. The Key Account Team Lead also plays a critical role in monitoring daily meetings with mayors to address municipal concerns and ensure timely information

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Role	Role Section	Role Description
		sharing. The primary responsibilities include, but are not limited to: • Providing Support to Customer Experience & Key Accounts Specialist: Assisting in gathering and reporting customer feedback and satisfaction levels, ensuring that any issues are promptly addressed. • Monitoring Regional Key Accounts Representatives: Following up on the activities and requests of the Regional KA Representatives to ensure they are effectively managing customer relationships and resolving any issues that arise. • Guiding Regional Engagement and Monitoring Daily Meetings with Mayors: Overseeing daily interactions with mayors to address concerns at the municipal level and ensure that customer service efforts are communicated effectively, ensuring that their needs and concerns are managed proactively. • Ensuring Consistency in Communication: Utilize strong analytical skills, and an understanding of customer service and other utility processes, to achieve strong performance metrics and a positive community and customer experience. • Identify, develop, and implement creative solutions to address and reduce future community and customer complaints and support a positive customer experience. • Develop collaborative workflow processes with Operations, Plans & Intelligence, and Customer Experience & Key Account Specialist.
Command Section Assistant	Command	During LEOC activations, the Command Section Assistant provides administrative assistance and support to the Incident Commander as needed. They also serve as the scribes for the Command Staff and are responsible for documenting section activities and other duties as assigned by the Incident Commander. The Command Section Assistant also coordinates with other support staff as necessary to ensure the effective use of SharePoint and other information-sharing systems. The primary responsibilities include, but are not limited to: • Ensure each position maintains a lot of important information and activities. • Maintains a complete and accurate record of all actions and key decisions that occur during and after the incident. • Take notes at meetings attended by the Incident Commander (IC).

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Role	Role Section	Role Description
		• Compile notes and other significant pieces of information into situational updates/reports. • Answer Command Section desk phone(s) if staff are busy and unable to answer. • Ensure each position within the Command Section maintains the ICS 214 capturing important information and activities. • Maintain personnel accountability of the LEOC Command section activated and mobilized roster using the ICS 214's and Check-in/Check-out history in WebEOC. • Schedule and coordinate the CMC meetings. • Once the LEOC is activated, in coordination with the P&I section Chief, schedule the virtual update meetings with the National Weather Service. • In charge of section personnel activation via WebEOC, preferably; however, other means might be used. Also, in charge of the finance section activation.
Operations Section Chief/Deputy Ops Section Chief	Operations	The Operations Section Chief is responsible for overseeing the incident response, making necessary system repairs, and managing all tactical operations to achieve objectives, with guidance from the Incident Action Plan (IAP). The Operations Section Chief advises all Command Staff regarding the status of tactical operations. The Operations Section Chief makes staffing assignments for the Operations Section and ensures adequate staffing. All Operations Section tasks are accomplished by the Operations Section Chief when subordinate staff are not activated. The primary responsibilities include, but are not limited to: • Prioritize the safety of tactical operations. • Assist the Incident Commander in establishing incident objectives and recommend alternate strategies for the response as required. • Develop and supervise the operations portion of the Incident Action Plan. • Direct and manage tactical restoration operations. • Request additional resources to support tactical operations. • Approve the release of resources from active operational assignments. • Brief Operations staff and communicate with LEOC leadership. • Maintain situational awareness about the overall response and related tactical needs. • Maintain close contact with Incident Commander and subordinate Operations personnel.

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Role	Role Section	Role Description
		• Ensure the positions within the Section to execute their position-specific duties and responsibilities. • Prepare and submit requested reports/documents to the Incident Commander. • Ensure operational objectives are updated. • Ensure adequate and timely progress towards meeting goals and consider alternate strategies.
T&D System Operations Branch Director	Operations	The T&D System Operations Branch Director is responsible for the safe and efficient operation of the Transmission and Distribution Grid. Using real-time SCADA, Generation inputs, and line capacities, the system operations team controls and directs all system activities to ensure a stable, functional grid is maintained across the island(s). The critical business function of the System Operations Center is the real-time operation of the BES (Bulk Electric System) and non-BES assets that LUMA operates. They direct all operations related to the transmission and distribution of the power grid and primarily consist of Dispatch Control Center functions that manage the real-time operations of LUMA's BES. The control room monitors and addresses information received to meet the system's planned or unplanned operational requirements. At the direction of the T&D Systems Operations Branch Director, the dispatch control center follows specific procedures, including those for emergency response execution and black-start operations as necessary and in accordance with the System Operation Principles. The primary responsibilities include, but are not limited to: • Control what comes on or off the system from a Generation, substation, and line perspective. • Manage the activated T&D System Operations Control Center (SOCC). • Direct all operational requests and requirements to field personnel. • Isolate the grid as necessary during system constraints or lack of capacity. • Provide field resourcing needs to planning and intelligence teams. • Provide Incident Commander and LEOC awareness of overall system capacity loading, issues, and priorities for the planning periods. • Provide restoration priorities from a system perspective to the Operations Section Chief and the Planning & Intelligence Section Chief.

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Role	Role Section	Role Description
		Provide information to calculate estimated times of restoration (ETRs) as system conditions and status changes.
Field Operations Branch Director East and West	Operations	The Field Operations Branch Director East and West is responsible for overseeing the response to the event throughout the divisions, making the necessary repairs to the system, and managing all tactical operations and resources to achieve that objective, with guidance from the Incident Action Plan (IAP). The primary responsibilities include, but are not limited to: - Manage the activated Regional Commanders to include Transmission and Substations. - Assure the safety of tactical operations. - Develop and supervise the operations portion of the IAP. - Direct and manage tactical restoration operations. - Identify and request from the Logistics section, when additional transmission and substation-related resources are required to support tactical operations. • Review and validate transmission and substation damage and repair information and provide it to the Planning & Intelligence Section for situational awareness. • Provide transmission and substation restoration priorities to ROCCs, SERTs, and field teams in accordance with LUMA's overall system restoration priorities. - Approve the release of resources from active operational assignments. - Initiate or approve changes to the IAP regarding operational tactics. - Maintain close contact with Incident Commander and Operations Section Chief. - Provide updates to the Operations Section Chief and/or Deputy Operations Section Chief at regular intervals.
Priority Restoration Group Branch Director	Operations	The Priority Restoration Group Branch Director is primarily responsible for the priority restoration of electrical service. The Priority Restoration Group Branch Director operates in a centralized or decentralized environment as required. The Priority Restoration Group Branch Director utilizes the Outage Management System (OMS), and system control centers to direct the activities of the Priority Restoration Group. The primary responsibilities include, but are not limited to: Schedule crews according to predetermined shifts.

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Role	Role Section	Role Description
		- Disseminate dispatch instructions to crews. - Conduct close-out of OMS tickets with crews to receive reports on the nature of the work completed, regardless of the manner of dispatch. - Conduct follow-up phone calls and/or emails when work is completed, including notification to the Customer Experience Team as needed, Community Affairs, and Regional and Municipal agencies. - Maintain communications with an assigned contact in the LEOC to address unique or emergency situations. - Work with Operations to complete the training of Priority Restoration Group line crews and provide training updates as needed.
Air Operations Unit Leader	Operations	The Air Operations Unit Leader supervises all air operation activities, prepares the air operations portion of the IAP, implements its strategic aspects, and provides logistical support to aircraft operating on the incident. The primary responsibilities include, but are not limited to: - Ensure individual readiness. - Obtain and assemble information and materials needed for the incident. - Gather critical information pertinent to the incident. - Participate in the preparation of the Incident Action Plan. - Ensure daily operational objectives and performance standards are met. - Prepare for and participate in pre-planning/strategy meetings. - Review local area aviation status, restrictions, and limitations if applicable. Obtain an initial briefing from the supervisor. - Establish and communicate the chain of command, reporting procedures, risk management processes, and aviation operational strategy. - Determine the need for additional air support and calculate the amount and type of resources required. Ensure adequate staffing is in place to support anticipated activity. - Assist in the development and implementation of the incident demobilization plan.
Debris Management Unit Leader	Operations	The Debris Management Unit Leader is responsible for leading the LUMA debris management system, a collection of personnel, facilities, technical expertise, and material resources designated for the clearance, removal, transport, sorting, storage, recycling, and ultimate disposal of disaster

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Role	Role Section	Role Description
		debris. The primary responsibilities include, but are not limited to: • Work with selected debris removal contractors, designated local (public and non-governmental) support agencies and organizations, and involved state support agencies (as applicable). • Provide for the overall (personnel, equipment, materials, vehicles, facilities, communications) management and coordination of the debris management operation. • Provide technical expertise in all facets of debris management operations. • Coordinate road access with municipal, federal, and state (DTOP) agencies (as applicable). • Assist in the identification, establishment, operation, and closeout of required debris management support facilities. • Monitor and track the activities and progression of the debris management operation. • Establish and manage a system for receiving and addressing inquiries from the public, unsolicited contractors, etc. • Provide operation-specific information for required reports, briefings, media releases, etc.
Operations Section Assistant	Operations	The Operations Section Assistant documents operational LEOC activities and serves as a scribe to assigned Operations staff. They maintain a complete and accurate record of all events and key decisions that occur during and after the incident. Such records are written and could be documented in map form. The Operations Section Assistant coordinates with other Section Support Staff as necessary to ensure the effective use of SharePoint or other information-sharing systems. The primary responsibilities include, but are not limited to: • Ensure each position maintains important information and activities. • Maintain a complete and accurate record of all actions and key decisions that occur during and after the incident. • Take notes at meetings conducted by the Operations Section Chief. • Compile notes and other significant pieces of information into situational updates/reports. • Answer Operations Section desk phone(s) if staff are busy and unable to answer. • Ensure each position within the Operations Section

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Role	Role Section	Role Description
		maintains the ICS 214, capturing important information and activities. • Maintain personnel accountability of the LEOC Operations Section activated and mobilized roster using the ICS 214's and Check-in/Check-out history in WebEOC. • In charge of section personnel activation via WebEOC, preferably; however, other means might be used when approved by the Section Chief.
T&D System Operations Control Center (SOCC)	Operations	The T&D System Operations Control Center (SOCC) staff provides support in the critical business function of the System Operations Center, as well as the real-time operation of the BES (Bulk Electric System) and non-BES assets operated by LUMA. They direct all operations related to the transmission and distribution of the power grid and primarily consist of Dispatch Control Center functions that manage the real-time operations of LUMA's BES. The control room monitors and addresses information received to meet the system's planned or unplanned operational requirements. At the direction of the T&D Systems Operations Branch Director, the dispatch control center follows specific procedures, including those for emergency response execution and black-start operations as necessary and in accordance with the System Operation Principles.
Regional Operations Command Centers (ROCCs) Commanders	Operations	The LUMA Regional Operations Command Centers (ROCCs) Commander reports to the Division Branch Director(s), who directs the response of field teams. These Commanders are responsible for notifications to and mobilization of division personnel required for operational emergency response, proportionate to the size, scale, and complexity of the emergency. Subsequently, these elements notify and mobilize personnel from their respective branches, regions, and SERT teams, and direct them to initiate their emergency restoration activation protocol. Requested resources report to their designated staging area(s) or dispatched response locations.

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Role	Role Section	Role Description
Logistics Section Chief/Deputy Logs Section Chief	Logistics	The Logistics Section Chief advises all Command and General Staff regarding the status of logistical operations and provides all incident resources to support the tactical execution of incident objectives. They also provide all facilities, transportation, supplies, equipment maintenance, and fueling for incident personnel and all off-site resources. The primary responsibilities include, but are not limited to: • Maintain situational awareness about the overall response and related logistics requirements. • Ensure section objectives, as stated in the LEOC Incident Action Plan (IAP), are accomplished within the operational period as required. • Ensure acquisition, distribution, and documentation of all requested resources. • Ensure resources requested are maintained within the boundaries of fiscal, environmental, and other constraints. • Coordinate the support of facilities, services, and materials in support of system restoration activities across multiple regions. • Provide oversight, coordinate, and/or direct staging site operations. • Identify and estimate service, support, and sustainment requirements for the current and future operational periods. • When the LEOC is activated, the Supply Unit is activated to check the availability of resources and arrange for the delivery of necessary supplies. • Coordinate site security at LUMA facilities during emergency response operations. • Ensure the positions within the Section execute their specific duties and responsibilities. • Oversee demobilization of the Logistics Section and associated resources. • Undertake additional responsibilities as assigned by the LEOC Incident Commander. • The Logistics Section Chief participates in LEOC planning meetings, reports the status of resources and shortfalls, and identifies areas where contingency planning/action is required.
Support Branch Director	Logistics	The Logistics Support Branch Director coordinates the activities of Support Branch Unit Leaders to ensure that all LUMA resources under the Logistics Section's control meet their needs. The primary responsibilities include, but are not limited to: • Coordinate the location of all LEOC needs based on operational requirements.

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Role	Role Section	Role Description
		- Establish the appropriate level of unit staffing within the Support Branch, continuously monitoring the effectiveness of the organization, and modifying as required. - Ensure branch objectives stated in the LEOC Incident Action Plan are accomplished within the operational period or within the estimated time frame. - Inform the Logistics Section Chief of all significant issues relating to the Support Branch.
Contract Administration Unit Leader	Logistics	The Contract Administration Unit Leader is responsible for ensuring that any existing prepositioned or newly acquired contracts are appropriately utilized. The primary responsibilities include, but are not limited to: - Validating that sections are utilizing the appropriate contract types for the work. - Monitoring contract burn rates and contract expiration triggers. - Coordinating contract revisions with the Procurement Officer. - Communicating tracking and invoicing requirements to contractors. - Ensuring invoices issued by contractors contain the appropriate information and approvals. - Notifying LEOC personnel when a contractor can no longer be utilized due to the expiry of a contract.
Contract Administrators Support Team	Logistics	The Contract Administration Support Team is responsible for issuing Task/Work Orders. They will monitor the contract balance. In addition, it ensures that contractors' obligations are met and that they submit all required documentation for services. The primary responsibilities include, but are not limited to: - Maintaining accurate records of changes, communications, and decisions related to contracts, providing a clear audit trail. - Ensuring all documentation is organized and easily accessible for post-emergency evaluation, audits, and potential claims or dispute resolution.
Supply Unit Leader	Logistics	The Supply Unit Leader is responsible for managing, receiving, and distributing resources, including personnel, equipment, and supplies. The primary responsibilities include, but are not limited to: Track the delivery of incident-related resources and supplies.

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Role	Role Section	Role Description
		• Maintain an inventory of equipment and supplies. • Anticipate resource and supply needs. • Determine the type and number of resources to order. • Coordinate contracts and resource orders with the Finance Section. • Coordinate the return of reusable resources to serviceable condition. • Participate in Logistics Section planning activities. • Liaise with field operations personnel to maintain minimum resource requirements. • Receive and respond to requests for personnel, supplies, and equipment.
Logistics and Mutual Aid Support Staff (Support & Services)	Logistics	The Logistics and Mutual Aid Support Staff (Support & Services) are responsible for dealing with lodging, food, and onboarding. Once a utility confirms they will be supporting LUMA Mutual aid assistance may be in the form of personnel, supplies, and/or equipment required to mitigate, repair, or restore the system to normal operations. Mutual aid assistance is either furnished by LUMA or requested by LUMA. The primary responsibilities include, • Assign a crew guide to the mutual aid crews. • Provide the roster of crews to the System Emergency Restoration Team (SERT) Unit Leader. • Verify personnel and equipment on the property; coordinate with the Logistics Section to establish lodging, meals, and transportation.
Transportation & Fleet Unit Leader	Logistics	The Transportation & Fleet Unit Leader is responsible for coordinating the transportation of emergency personnel and resources by all available means, coordinating all public transportation resources, coordinating fleet usage and upkeep, and coordinating the emergency routes with the Operations Section. The primary responsibilities include, but are not limited to: • Plan, staff, and manage the Transportation & Fleet Unit to meet incident needs safely. • Coordinate with the Logistics Section and other sections to help meet overall incident objectives. • Manage support for out-of-service resources; transportation for personnel, supplies, food, and equipment; fueling, service, maintenance, and repair for vehicles and other ground support equipment; and development and implementation of the incident transportation plan. • Establish or transition into a unit under the Logistics Section.

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Role	Role Section	Role Description
		• Configure the unit with personnel to support operations. • Ensure transportation and fleet vehicles and equipment are properly maintained and in a safe condition to support the incident. • Identify issues, resource needs, and shortfalls for the next operational period.
Corporate Security Unit Leader	Logistics	The Corporate Security Unit Leader is responsible for coordinating uninterrupted physical security across all LUMA properties and assets, and for ensuring a protected, secure environment for all employees and contractors during emergency response efforts. The primary responsibilities include, but are not limited to: • Coordinate funded private security guard emergency requirements using existing private security guard contracts under the management and administration of LUMA Corporate Security, using the appropriate form. • Submit forms to the Corporate Security office located in NEOS Lobby, attention: Security Analyst Team Leader, for processing. • Provide management of emergency contract security guard services by identifying, validating, and certifying LUMA employees who will sign invoices for payment. • Coordinate private security guard coverage as needed at gate locations, equipment, staging areas, and motel/hotel parking areas for line and tree contractors, vehicles, and equipment. • Establish and maintain a direct line of communication with local law enforcement entities by coordinating with the appropriate internal personnel through the PREMB EOCs. • Through coordinated efforts, provide convoy escorts, advise on traffic concerns, and provide roadside protection and security as needed.
Service Branch Director	Logistics	The Service Branch Director ensures that the Logistics Service Branch functions are carried out in support of the LEOC and activity in the operational area(s). The Service Branch Director has the overall responsibility for the preparedness, planning, and coordination of a variety of logistical services, including facilities, volunteer management, food, and lodging. The primary responsibilities include, but are not limited to: • Ensure all fixed and temporary facilities are adequately staffed and operational. • Ensure all Corporate Security functions are carried out

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Role	Role Section	Role Description
		effectively. • Ensure a process is in place to register volunteers and accurately track their donated time. • Identify community partners/locations willing to accept and hold physical donations. • Communicate with municipalities partnering in response efforts to ensure the appropriate agreements and reporting mechanisms are in place.
Food & Lodging Unit Leader	Logistics	The Food & Lodging Unit Leader is responsible for managing the Food & Lodging Unit for emergency and disaster response, and relief personnel. The primary responsibilities include, but are not limited to: • Coordinate with the operational groups on the requirements for lodging and meal resources for LUMA and mutual aid resources. • Maintain a listing of food and lodging resource locations and establish a meal plan with food vendors. • Establish communications with hotel vendors to identify the availability of hotel rooms across the impacted region(s). • Disseminate lodging requirements to staff and monitor requirements to be satisfied. • Document the number of rooms reserved, occupied, and vacant by day for each hotel being used. • Release rooms as required. • Document all requirements, decisions, issues, and email logs. • Coordinate feeding response personnel using field kitchens, contracted catering, and other available resources. • Determine feeding needs at all incident facilities, including LEOC, menu plans, facilities for food preparation and serving, potable water, and maintenance of the food service areas. • Ensure staff take appropriate health and safety measures during food preparation and service. • Keep inventory of food and monitor food orders.
Facilities Unit Leader	Logistics	The Facilities Unit Leader is responsible for the maintenance and operation of all LUMA buildings occupied during the outage event, providing rest and sanitation facilities for incident personnel, and managing base and camp operations. The primary responsibilities include, but are not limited to: • Participate in Logistics Section planning activities. • Determine requirements for each facility to be

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Role	Role Section	Role Description
		established, including the command post. • Prepare and notify unit leaders of the layouts of incident facilities. • Activate incident facilities. • Provide base and camp managers. • Provide facility maintenance services – sanitation, lighting, and cleanup. • Demobilize base and camp facilities. • Provide roadside safety details as needed.
IT OT & Communications Branch Director	Logistics	The IT OT & Communications Branch Director ensures the Branch's functions are carried out in support of the LEOC and activity in the operational area(s). They have the overall responsibility for the preparedness, planning, and coordination of a variety of logistical services, including communications, IT, and OT. The primary responsibilities include, but are not limited to: • Ensure all IT data and telecommunications systems (infrastructure and applications) are functioning effectively. • Ensure all OT systems are functioning effectively. • Provide all communications equipment necessary to provide effective, interoperable voice communications by and between all incident personnel.
Information Technology Unit Leader	Logistics	The Information Technology (IT) Unit Leader is responsible for continuously assessing the event's IT-related logistical needs and obtaining and allocating resources as required to meet the event's demands. The primary responsibilities of the IT Unit Leader include, but are not limited to: • Ensure equipment within the LEOC is operational. If repairs or maintenance are required, notify the IC. • Notify the IC of any abnormal conditions in the system. • Ensure spare cell phones for distribution are available. • Ensure electronic transmission devices. Such as printers, faxes, etc., are available for use. • Maintain voice and data communications system throughout the event. • Contact critical communications and IT vendors to put them on advance notice of impending action. • Provide maintenance on company-provided equipment, as requested. • Dispatch IT Reps to locations to respond to IT issues.

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Role	Role Section	Role Description
Operational Technology Unit Leader	Logistics	The Operational Technology (OT) Unit Leader is responsible for ensuring the continuity of key operational technologies, including OT applications availability, IT Support, dispatching, procurement, and workforce management. The primary responsibilities include, but are not limited to: - Monitoring OTs and systems to ensure adequacy and continuity of service. - Restoring services to OTs when outages occur. - Developing alternative solutions to OTs when service cannot be restored. - Coordinating information with IT OT vendors and internal resources in response to OT issues. - Working alongside the Planning and Operations teams to help prioritize, repair, and deploy activities and services through the Network Operations Center (NOC).
WebEOC Administrator	Logistics	The WebEOC Administrator is responsible for ensuring the continuous functionality, accessibility, and operational integrity of the WebEOC platform throughout an event. This role focuses on supporting situational awareness, facilitating communication, and meeting the documentation needs of LEOC personnel. The primary responsibilities of the WebEOC Administrator include, but are not limited to: - Continuously assess the WebEOC platform for system performance and troubleshoot any issues. Promptly notify the Information Technology Unit Leader and IT OT & Communications Branch Director if critical issues or abnormal conditions arise. - Responsible for escalating the request to Juvare (vendor) for WebEOC support or resources when issues exceed internal capabilities. - Collaborates with the IAM Cybersecurity Unit Leader, who oversees and approves the Single Sign-On (SSO) process. - Ensures user accounts are active, and permissions are assigned appropriately to LEOC staff, allowing seamless access to necessary boards and data. - Maintains usage discipline within WebEOC by conducting regular reviews, identifying and notifying discrepancies as needed, and ensuring proper use of WebEOC boards. - Provides just-in-time training for LEOC personnel unfamiliar with WebEOC functionality and offers on-demand technical support for troubleshooting during the event. - Ensures WebEOC data is regularly backed up to prevent data loss.

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Role	Role Section	Role Description
Communications Unit Leader	Logistics	The Communications Unit Leader is responsible for defining, programming, and maintaining LUMA's incident response communications equipment. They also provide data, telephone, and radio communications support for incident personnel. The Communications Unit is tasked with managing the operational and technical aspects of incident communications. As an incident grows, communications need to expand quickly. The primary responsibilities include, but are not limited to: • Provide for the operational and technical communications needs of the incident. • Provide the Communications Plan ICS-205 component for the IAP. • Coordinate needs for incident communications for Air Operations, T&D System Operations, and logistical section needs. • Initiate and maintain accurate records of communications equipment. • Design radio communications systems to meet incident needs. • Provide the communications equipment needed for contract and mutual aid resources.
Cybersecurity Unit Leader	Logistics	The Cybersecurity Unit Leader identifies cybersecurity vulnerabilities and assesses threats to the infrastructure and the incident management organization. The primary responsibilities include, but are not limited to: • Planning and managing the technical and operational aspects of meeting the cybersecurity needs of an incident or event. • Developing strategies and plans for mitigating identified vulnerabilities and threats. • Preventing and detecting cybersecurity threats. • Coordinating documentation and ensuring sensitive security information is properly controlled. • Collaborates with the WebEOC administrator, responsible for ensuring the continuous functionality, accessibility, and operational integrity of the WebEOC platform throughout an event. Assisting in identifying, prioritizing, and implementing technical infrastructure and key resources utilized in cyber defense efforts.

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Role	Role Section	Role Description
Human Resources Unit Leader	Logistics	The Human Resources Unit Leader ensures staff are appropriately accounted for and that employees are assigned roles to support response efforts as required. The primary responsibilities include, but are not limited to: • Ensuring the well-being of employees during and after the event, providing counseling services, and ensuring communication amongst teams. • Establish an employee accountability system to ensure LUMA is aware of any emergency circumstances impacting employees. • Dispatching employees to roles based on identified needs from the incident leadership. • Ensuring any contingent human resources (including volunteers) are appropriately onboarded to human resource systems as required.
Logistic Section Assistant	Logistics	The Logistics Section Assistant (AST) is a member of the Logistics Section, documents LEOC activities, and serves as a scribe to assigned Logistics staff. The Section Assistant documents all activities and records information for the area assigned. Such records are written and could be documented in map form. The Logistics Section Assistant coordinates with other Section Assistants as necessary to ensure the effective use of SharePoint or other information-sharing systems. The primary responsibilities of the AST include, but are not limited to: • Ensure each position maintains a lot of important information and activities. • Take notes at meetings conducted by the LSC. Compile notes and other significant pieces of information into situational updates/reports. • Answer the Logistics Section desk phone(s) if staff are busy and unable to answer. • Maintains a complete and accurate record of all actions and key decisions that occur during and after the incident. • Ensure each position within the Logistic Section maintains ICS 214, capturing important information and activities. • Maintain personnel accountability of the LEOC Logistic Section activated and mobilized roster using the ICS 214's and Check-in/Check-out history in WebEOC. • In charge of section personnel activation via WebEOC preferably, however other means might be used, preferably; however, other means might be used when

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Role	Role Section	Role Description
		approved by the Section Chief
Planning & Intelligence Section Chief/Deputy P&I Section Chief	Planning & Intelligence	The Planning & Intelligence Section Chief is responsible for conducting overall incident planning activities to support the response and restoration effort. This includes collecting information on situations and resource status, evaluating it, and processing it for use in developing IAPs and estimated times of restoration (ETRs). The position assists the Incident Commander in establishing incident objectives and recommends alternate strategies for the response as required. The PSC also establishes the LEOC's battle rhythm by scheduling operational briefings, planning meetings, and reporting timelines. The primary responsibilities include, but are not limited to: • Collect, analyze, and manage all internal and external data, including damage assessments. • Conduct and facilitate planning meetings. • Compile and display incident status information. • Supervise the preparation of the IAP. • Provide input to the Incident Commander and Operations Section Chief in preparing the IAP. • Establish information requirements and reporting schedules for units within the Planning Section. • Record and track both internal and external support resources utilized during an emergency event. • Provide predictions on incident potential. • Report significant changes in incident status. • Ensure positions within the Section execute their specific duties and responsibilities. • Oversee preparation of the Demobilization Plan. • Oversee preparation and submission of Report Type I regarding customer outages and Report Type II regarding restoration resources. • Lead the After-Action Review session in coordination with EP prior to LEOC demobilization. Document Findings and Outcomes.
Damage Assessment Group Branch Director	Planning & Intelligence	The Damage Assessment Group Branch Director is responsible for ensuring that detailed damage assessments from the regions are compiled to determine the extent of damage to the distribution system and to expedite the restoration of service to LUMA customers, in accordance with the LUMA Major Outage Metrics in Appendix A of Annex A. The Damage Assessment Unit Leader also uses damage assessment information to estimate the estimated time of restoration (ETR) in accordance with the LUMA Major Outage

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Role	Role Section	Role Description
		Metrics, as well as the number of resources, materials, and equipment needed to repair the system. The Damage Assessment Group Branch Director works closely with the Operations Section Chief to develop and distribute damage assessment summaries and the ETR. The primary responsibilities include, but are not limited to: • Initiates and monitors the progress of damage assessment teams, including internal and external damage assessment teams, including contractors, municipalities, etc. • Receives resource information from Logistics to determine the number of resources, including damage assessors available for the event. • Discuss damage assessment, projected ETRs, and the projected number of restoration crew members, contractors, and resources required based on damage assessment. • Compile damage assessment information into a system damage assessment spreadsheet to assess and determine the extent of damage to the system across impacted regions, and develop ETRs, materials, equipment, and resources and submit them to the Operations Section Chief. • Participate in post-emergency reviews to identify lessons learned, as instructed. • Provide documentation to the Documentation Unit Leader. • Ensure documentation is submitted or stored appropriately and provide additional information as requested to aid in the development of the After-Action Report (AAR).
Resources Unit Leader	Planning & Intelligence	The Resources Unit Leader is responsible for establishing all incident check-in activities, preparing resource status information, maintaining displays, charts, and lists that reflect the status and location of resources, transportation, and support vehicles, and maintaining a master check-in list of resources assigned to the incident, including personnel and equipment. These resources may be LUMA-owned, contracted, rented, or mutual aid assets. The primary responsibilities include, but are not limited to: • Assemble resource display materials. • Assign duties to resource unit personnel. • Establish a check-in function at incident locations. • Establish and maintain a resource tracking system. • Establish the command post display on team organization and resources allocated based on the

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Role	Role Section	Role Description
		incident briefing form (ICS Form 201). • Confirm dispatch and estimated time of arrival of response personnel. • Gather, post, and maintain incident resource status, as well as the status of transportation and support vehicles and personnel. • Maintain a master roster of all resources checked in at the incident. • Prepare an organization assignment list (ICS Form 203) and organization chart (ICS Form 207). • Prepare appropriate parts of the division assignment lists (ICS form 204). • Provide resource summary information.
ETR Specialist	Planning & Intelligence	The ETR Specialist is responsible for collecting information on estimated times of restoration (ETRs) and updating the Outage Management System (OMS) to ensure the information is relevant to disaster operations. The ETR Specialist is responsible for developing a global ETR between 24 and 48 hours after the storm's passage and/or it is safe to commence work based on damage assessments, resources, and available crews. The ETR Specialist works closely with the Regulatory Reporting Specialist to assist in providing ETRs for outages reported by the OMS Specialist. The ETR Specialist reports to the Situation and Intelligence Unit Leader and works in the Planning section of the LEOC.
Situation & Intelligence Unit Leader	Planning & Intelligence	The Situation and Intelligence Unit Leader is responsible for collecting and organizing incident status and situation information. The Situation and Intelligence Unit Leader is responsible for evaluating, analyzing, and displaying that information for use by response personnel. They report to the Planning and Intelligence Section Chief (PSC) and work in the Planning area. The primary responsibilities include, but are not limited to: • Report to PSC for situation briefing. • Assemble incident status display materials. • Assign duties to situation unit personnel. • Collect incident data. • Prepare predictions at intervals or upon request of the PSC. • Prepare and maintain command post-incident status display. • Arrange for internet-based situation reporting, if required. • Participate in incident planning meetings.

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Role	Role Section	Role Description
		• Prepare the Incident Status Summary Form (ICS Form 209). • Provide photographic services and maps. • Provide resource and situation status information in response to specific requests. • Maintain situation unit records. • Demobilize the unit on request.
OMS Specialist	Planning & Intelligence	The OMS Specialist is responsible for collecting information from the Outage Management System (OMS) on outages and system status to support disaster operations. The OMS Specialist works closely with the Regulatory Reporting Specialist to provide information on outages, so they are reflected in the Restoration Stage Reports. The primary responsibilities include, but are not limited to: • Routinely collect OMS data from the T&D System Operations Control Center before, during, and after an emergency. • Share OMS data with the IC and the Planning & Intelligence Section. • Monitor the Control Center and the OMS. • Answer any questions LEOC Staff may have on system outages. • Ensure OMS data is incorporated into Incident Action Planning. • Triage information with the ETR Specialist.
GIS Unit Leader	Planning & Intelligence	The Geographic Information System Unit Leader coordinates the preparation of incident maps and displays by collecting and interpreting information. The primary responsibilities of this position include, but are not limited to: • Participate in functional area briefings and after-action reports. • Define, implement, and maintain a daily archival process. • Provide written documentation, digital data, and products developed during the incident to the Documentation Unit and others. • Assist in producing incident products by completing digital analysis. • Develop, update, and maintain metadata. • Coordinate with the Situation and Intelligence Unit Leader to prepare incident maps and displays by collecting and interpreting information. • Produces and updates maps within established guidelines and time frames.

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Role	Role Section	Role Description
Reporting Branch Director	Planning & Intelligence	The Reporting Branch Director (RBD) completes all regulatory reports and is responsible for understanding the T&D OMA Emergency Event Reporting Requirements. They are responsible for maintaining information exchange among LUMA Energy, PREMB, P3A, and additional federal agencies, as appropriate. They collect information in the LEOC for inclusion in external reports to P3A and PREB. They get the report information approved internally prior to providing it to the REGS and the P3LNO for external distribution. They work with the Command Staff, the Operations Section Chief, and the Planning and Intelligence Section Chief to collect information, get reports approved, and have information distributed through the appropriate channels. The primary responsibilities of the RBD include, but are not limited to: - Collecting ETR data from the ETR Specialist and collecting Resourcing information from the Resources Unit Leader (RESL). - Complete the Pre-incident Stage Report, Restoration Stage Report Type I & II, and a Final Event Report. - Complete restoration reports every 24 hours, at a minimum. - Obtain approval of internal report information prior to external report distribution. - Review external reports for distribution to the PREB and P3A.
Regulatory Reporting Unit Leader	Planning & Intelligence	The Regulatory Reporting Unit Leader is responsible for understanding the T&D OMA Emergency Event Reporting Requirements and ensuring compliance with them during an Emergency Event. The Regulatory Reporting Unit Leader supports the completion of all regulatory reports as required. The Regulatory Reporting Unit Leader is responsible for maintaining information exchange among LUMA, PREMB, P3A, and other federal agencies, as appropriate. The position works with the Command Staff, the Operations Section Chief, and the Planning and Intelligence Section Chief to collect information, get reports approved, and have information distributed through the appropriate channels. The primary responsibilities of the Regulatory Reporting Unit Leader include, but are not limited to: Support the Reporting Branch Director to collect information in the LEOC and develop internal reports for approval including, but not limited to, the Pre-

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Role	Role Section	Role Description
		incident Stage Report, Restoration Stage Reports, and a Final Event Report. • Support the completion of status reports every 24 hours, at a minimum. • Complete external reports with information approved by the Incident Commander and coordinate with LUMA PREB & P3A Liaison Officer for the final distribution of reports.
Internal Reporting Unit Leader	Planning & Intelligence	The Internal Reporting Unit Leader is responsible for ensuring that timely and accurate information is gathered and reported to relevant stakeholders within LUMA. The position is responsible for implementing reporting protocols to ensure incident leadership has the information they need to make informed decisions. The primary responsibilities include, but are not limited to: • Create and populate internal reporting templates. • Coordinate with sections to gather relevant incident information to include in reports. • Complete a review of emergency information to resolve any discrepancies in internal reports. • Ensure key issues are appropriately identified. • Obtain reviews and approvals on any internal reports.
MOE Metrics Unit Leader	Planning & Intelligence	The Major Outage Event Metrics Unit Leader ensures that reporting requirements for MOE metrics are met. The MOE Metrics Unit Leader ensures that, during an MOE, LUMA delivers the required Daily Update to the PREB and P3A regarding MOE performance metrics (as approved by the PREB). The position works closely with the LUMA PREB & P3A Liaison Officer to ensure the required MOE performance metrics report is compiled and distributed daily to the PREB and P3A. Responsibilities of the position include, but are not limited to: • Understand the Emergency Response MOE performance metrics reporting requirements and who to collect each metric from. • Collect daily data on the MOE performance metrics from various LEOC stakeholders. • Draft and finalize the daily report. • Coordinate final sign-off from the necessary approvers. • Coordinate with Regulatory to get the P3A transmittal number and form. • Coordinate with the LUMA, PREB & P3A Liaison Officer for final daily distribution of reports to meet required deadlines.

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Role	Role Section	Role Description
Environmental Unit Leader	Planning & Intelligence	The environmental unit leader is responsible for documenting the environmental impacts of restoration work, providing detailed insights into specific tasks, and actively mitigating potential damage during emergency responses. Furthermore, the leader is responsible for documenting or gathering the initial Environmental Historic Preservation (EHP) requirements within the plan. The primary responsibilities include, but are not limited to: • Oversee and manage environmental response activities within the LUMA Emergency Operations Center. • Initiate notifications and coordinate with regulatory agencies (US Corps Engineers, Fish and Wildlife, Natural Resources, etc.) to ensure compliance with environmental laws and regulations. • Assess and mitigate potential environmental risks associated with power generation and distribution. • Develop a plan to mitigate (avoid ground disturbance) any impacts resulting from emergency work, ensuring submission of the plan to the relevant agencies once the emergency period concludes. • Collaborate with internal teams to integrate environmental considerations into emergency response plans. • Provide guidance on environmentally friendly practices and sustainable initiatives. • Act as a liaison between LUMA and environmental organizations or community stakeholders. • Monitor and report on environmental performance metrics during emergency situations. • Lead a team of environmental specialists in executing environmentally responsible response actions. • Monitor and track emergency response activities that affect the environment. • Conduct thorough reviews of work completed, referencing WOP (Parte Diarios) or other relevant documentation. • Assess whether the area involved during emergency response is a critical zone, identify any potential environmental or historical impacts, and perform the proper notifications. • Obtain required EHP permits from appropriate agencies, before proceeding with planned emergency restoration work.
Documentation Unit Leader	Planning & Intelligence	The Documentation Unit Leader is responsible for ensuring incident files are maintained, complete, and up to date in

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Role	Role Section	Role Description
		accordance with LUMA standards and policies. The primary responsibilities of this position include, but are not limited to: • Report to the Planning and Intelligence Section Chief (PSC) for situation briefing. • Prepares and updates the Incident Action Plan for each operational period (reviewed by the Planning & Intelligence Section Chief and approved by the IC). • Establish a work area with files and a photocopier. • Retain and file duplicates of official forms and reports. • Accept and file reports and forms submitted to the unit. • Check the accuracy and completeness of the records submitted. • Correct errors or omissions by contacting the appropriate ICS Units. • Provide duplicates of forms and reports to authorized requesters. • Prepare incident documentation for the Planning and Intelligence Section Chief when requested. • Maintain, retain, and store incident files for use after demobilization.
Check-In Staff	Planning & Intelligence	The Check-In / Check-Out Staff supports personnel accountability and accurate documentation during an incident. Their responsibilities include, but are not limited to: • Initiates and manages the check-in and check-out process for all personnel at the LEOC using WebEOC. • Validates and tracks ICS Form 214 (Activity Log) for all checked-in personnel to ensure accurate recordkeeping of activities and resource assignments. • Reviews that proper documentation is uploaded and maintained in WebEOC. • Monitors personnel status throughout the incident and provides updates as needed to the Demobilization Unit Leader. • Ensures personnel complete the necessary demobilization documentation, including proper submission of ICS 221 and AAR board. Communicate any issues to the Documentation Unit Leader.
Demobilization Unit Leader	Planning & Intelligence	The Demobilization Unit Leader oversees unit staff who develop an incident demobilization plan that includes specific instructions for all personnel and other resources to be demobilized. The primary responsibilities include, but are not limited to: • Determines demobilization triggers in accordance with information from the Situation Unit.

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Role	Role Section	Role Description
		- Oversee the collection, evaluation, and dissemination of information on the demobilization of all incident resources. - Manages the development and dissemination of the demobilization plan. - Monitors demobilization process and progress. - Communicate any issues related to the demobilization of resources to incident leadership. - Coordinates implementation of the demobilization plan.
Engineering Group Branch Director	Planning & Intelligence	The Engineering Branch Director oversees personnel who complete Work Order Packages (WOPs) to repair damaged assets. The primary responsibilities include, but are not limited to: - Ensures appropriate engineering support is provided to the Engineering Group based on the outputs of preliminary and detailed damage assessments. - Establishes the facilities and equipment required for engineering and support teams to prepare WOPs and complete any additional assignments. - Monitors status and progress of WOP completion. - Ensures appropriate distribution of WOP between the LEOC, ROCCs, and SERTs. - Leads and directs other engineering-related response efforts.
Planning and Intelligence Section Assistant	Planning & Intelligence	The Planning and Intelligence Section Assistant (AST) documents LEOC activities and serves as a scribe to assigned Planning and Intelligence staff. The Section Assistant documents all activities and records information for the area assigned. Such records are written and may include graphical or map-based documentation. The Planning and Intelligence Section Assistant coordinates with other Section Assistants as necessary to ensure the effective use of WebEOC, SharePoint, or other information-sharing systems. The primary responsibilities of the Planning and Intelligence Section Assistant include, but are not limited to: - Ensure accurate documentation of inputs for the IAP, such as objectives, strategies, and resource requirements. - Assist in the preparation, review, and distribution of the IAP to all relevant sections and stakeholders. - Coordinate with other sections to gather and verify data required for the IAP. - Track and update the status of tasks and assignments outlined in the IAP.

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Role	Role Section	Role Description
		• Maintain a complete and accurate record of all actions, updates, and key decisions made by the Planning and Intelligence Section during and after the incident. • Take notes at Planning Section meetings and briefings, ensuring significant updates are captured for situational awareness. • Compile and archive data, maps, and reports as required for future reference or analysis. • Work closely with other Section Assistants to ensure seamless information flow and consistency across sections. • Answer the P&I Section desk phone(s) if staff are busy and unable to answer. • Assist with updates to incident maps, charts, or status boards as required. • Ensure each position within the Planning and Intelligence Section maintains the ICS 214 capturing important information and activities. • Maintain personnel accountability for the LEOC P&I activated and mobilized roster using ICS 214s and Check-in/Check-out history in WebEOC. • In charge of section personnel activation via WebEOC, preferably; however, other means might be used when approved by the Section Chief.
Finance Section Chief / Deputy Finance Section Chief	Finance	The Finance Section Chief advises the Command and General Staff on fiscal, contracting, and other administrative matters. The position makes staffing assignments for the Finance section, distributes job descriptions to assigned staff, and ensures the section is adequately staffed. The primary responsibilities include, but are not limited to: • Track and manage all financial aspects of ERP activation. • Track costs related to emergency restoration activities. • Provide financial and cost analysis information as requested. • Ensure compensation and claims functions are being addressed relative to the incident. • Gather pertinent information from briefings with each Section. • Develop an operating plan for the Finance section and fill the supply and support needs of the Section. • Maintain daily contact with the LUMA CFO on finance matters. • Ensure that personnel time records are completed accurately and in a timely fashion.

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Role	Role Section	Role Description
		• Ensure all obligation documents initiated during the ERP are properly prepared and completed. • Brief LUMA administrative finance personnel on all incident-related financial issues needing attention or follow-up. • Provide input to the IAP.
Time & Cost Unit Leader	Finance	The Time & Cost Unit Leader is responsible for collecting all cost data, performing cost-effectiveness analyses, providing cost estimates and cost-saving recommendations, and ensuring that personnel time is recorded in accordance with agency policy. The primary responsibilities include, but are not limited to: • Establish cost reporting procedures. • Maintain cost tracking, analysis, and estimates. • Collect and track time records and personnel costs for employees and contractors. • Document any unusual time or cost issues. • Provide forms and procedures for time recording and obtain check-in lists. • Prepare cost summaries that provide the total cost incurred and the average cost per day. • Ensure that all records are current and complete before demobilization. • Brief the Finance Section Chief on current problems, recommendations, outstanding issues, and follow-up requirements. Document and report any contract violations, cost overruns, and safety matters. • Maintain a master record of crew time reports, invoices, receipts, order forms, contracts, etc.
Cost Recovery Unit Leader	Finance	The Cost Recovery Unit Leader is responsible for collecting all cost data, performing cost-effectiveness analyses, providing cost estimates and cost-saving recommendations, and ensuring that personnel time is recorded in accordance with agency policy. The primary responsibilities include, but are not limited to: • Review time and cost tracking to ensure eligibility for reimbursement. • Review and audit emergency contracts to ensure eligibility for reimbursement. • Advise teams about the required documentation to support reimbursement applications. • Review and submit applications for reimbursement. • Ensure consistency of documentation requirements within field and contract teams.

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Role	Role Section	Role Description
Claims Unit Leader	Finance	The Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims-related activities (other than injury) for an accident. The primary responsibilities of the Claims Unit Leader include, but are not limited to: • Assist employees or contractors who are injured or involved in an incident-related accident during the incident with any related claims. • Receive and coordinate all claims for loss related to the incident. • Receive and process property claims from leased/rented properties, right of way, or other access requirements. • Manage the list of insured LUMA properties and equipment to include values. • Ensure all claims documentation is submitted, filed, or stored appropriately. • Ensure claims documentation complies with FEMA reimbursement requirements. • Determine the status of accidents and injury-related investigations. • Ensure written authority of people requiring medical treatment. • Advise on the nature and status of all existing and potential future claims. • Establish procedures for prompt notification of injuries or fatalities to Command Staff.

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ROCC Roles

Role	Role Section	Role Description
ROCC Commander	Command	The ROCC Commander serves as the Incident Commander within their respective Regional Operations Command Center (ROCC) and is responsible for directing and coordinating all emergency response and restoration efforts within the region. This includes overseeing the implementation of response objectives set by the LEOC, prioritizing emergency and public-safety incidents, and ensuring the effective use of available resources. The primary responsibilities include, but are not limited to: • Exercise command authority for ROCC operations. • Direct the response to life-threatening and public safety conditions such as downed wires and energized hazards. • Coordinate with SERT Chiefs for timely and accurate reporting to the LEOC. • Activate regional response personnel. • Monitor situational awareness across the region and provide status updates to the LEOC. • Implement LEOC operational objectives at the regional level. • Leverage Key Account to coordinate with municipal officials and emergency responders. • Ensure safety practices are enforced in the field and within the ROCC. • Participate in municipal conference calls and provide regional updates. • Support the demobilization process and after-action review efforts.
ROCC Section Assistant	Command	The ROCC Section Assistant provides administrative and documentation support to the Operation Commander and command staff within the ROCC. This role ensures the accurate recording of decisions, activities, and communication flow and facilitates coordination with other sections and teams. The primary responsibilities include, but are not limited to: • Provide general administrative support as directed by the Operation Commander. Maintain situational awareness using WebEOC boards for all ROCC Command Section activities. • Document key decisions, actions, and personnel assignments. • Take notes during command briefings and distribute situational updates. • Manage information flow using SharePoint, WebEOC, or other tools.

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Role	Role Section	Role Description
		- Assist in scheduling regional briefings and coordination meetings. - Support tracking of regional resources and personnel status using WebEOC.
Regional Key Account Representative	Command	The Regional Key Account Representative is responsible for coordinating communication and support for critical customers and key stakeholders within the region during damage assessment and restoration operations. This role ensures that high-priority customers (e.g., hospitals, critical infrastructure, government entities) are considered in damage assessment prioritization and restoration planning. The Regional Key Account Representative reports to the ROCC leadership and coordinates with the Key Account Team Lead at the LEOC. The primary responsibilities include, but are not limited to: - Report to ROCC leadership for assignment and coordination. - Serve as the primary liaison for critical and key account customers in the region. - Identify and communicate priority customer needs to Operations and Planning sections. - Support prioritization of damage assessments affecting critical facilities. - Provide situational updates to key stakeholders regarding outages and restoration. - Coordinate the daily meetings with mayors to provide updates. - Track impacts to critical customers and escalate urgent issues. - Support situational awareness by integrating customer impact data into operations.
Regional Safety/Assistant Safety Officer	Command	The Regional Safety Officer is responsible for overseeing worker and public safety during all regional emergency restoration activities. They ensure that all LUMA and contractor personnel follow safety protocols and that hazards are promptly identified and addressed. The primary responsibilities include, but are not limited to: - Identify, assess, and mitigate safety hazards in the field. - Conduct safety briefings for regional field crews, contractors, and SERTs. - Monitor compliance with LUMA's safety standards and stop unsafe actions. - Investigate safety incidents and near-misses, reporting findings to the LEOC Safety Officer. - Track safety alerts and ensure distribution of updated safety guidance. - Recommend actions to protect public safety during

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Role	Role Section	Role Description
		restoration. • Liaise with field safety personnel and assign safety representatives to SERTs as needed. • Notify the Operation Commander and LEOC Safety Officer of significant safety issues.
Regional Planning & Intelligence Lead	Planning & Intelligence	The Regional Planning & Intelligence Chief is responsible for collecting, analyzing, and distributing situational information for their region, and for contributing to the development of the Regional tailored Incident Action Plans. This role ensures accurate communication on forecasting, documentation, and coordination of data to support restoration operations. The primary responsibilities include, but are not limited to: • Collect and verify regional situational updates and damage assessments. • Coordinate regional planning meetings and briefings. • Develop and update regional IAP inputs and share with the LEOC Planning Section. • Monitor key restoration metrics and provide predictions for ETRs. • Maintain current mapping and visualization tools for field operations. • Coordinate with the Environmental and Vegetation Specialists to account for regional constraints. • Track resource requests and assignments at the regional level in support of initial response and restoration stages.
Regional Vegetation Specialist	Planning & Intelligence	The Regional Vegetation Specialist provides expertise and oversight of vegetation-related hazards impacting emergency response and restoration operations. This includes coordination with vegetation contractors and internal teams to ensure safe and timely clearance of trees or debris. The primary responsibilities include, but are not limited to: • Identify and prioritize vegetation-related hazards. • Coordinate vegetation crews to address access and safety issues. • Assess impacts of tree conditions on power restoration. • Track and report vegetation crew activities and progress. • Ensure compliance with environmental and regulatory requirements. • Provide technical input to the reports regarding vegetation needs. • Support the Environmental Unit Leader as needed on environmental mitigation • Coordinate with Regional KA to request support from municipalities and other government agencies for tree or debris clearance

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Role	Role Section	Role Description
Damage Assessment Unit Leader	Planning & Intelligence	The Damage Assessment Unit Leader is responsible for coordinating and managing all damage assessment activities within a Regional Operations Control Center (ROCC) area. This role ensures that Damage Assessment Strike Teams (DASTs) are effectively deployed, tracked, and aligned with regional and system-wide priorities. The Damage Assessment Unit Leader reports to the ROCC Commander and coordinates closely with the Damage Assessment Group Branch Director at the LEOC. The primary responsibilities include, but are not limited to: • Report to the ROCC Commander for situation briefing and assignments. • Coordinate and oversee all regional damage assessment operations. • Assign and track Damage Assessment Strike Teams (DASTs) within the region. • Prioritize assessments based on system criticality and outage data. • Maintain communication with SERT Damage Assessment Coordinators. • Provide regular status updates to the LEOC Planning and Intelligence Section. • Identify resource needs and request additional DASTs or support staff. • Monitor progress and ensure timely submission of damage assessment data. • Ensure all data is collected in accordance with FEMA and organizational standards. • Support restoration prioritization by providing accurate and timely damage information.
Regional Documentation Unit Leader	Planning & Intelligence	The Regional Documentation Unit Leader (ROCC) is responsible for managing, organizing, and maintaining all damage assessment documentation and records within the region. This role ensures that all collected data is complete, accurate, and properly stored to support operational decision-making and FEMA reimbursement requirements. The Documentation Unit Leader reports to the Planning and Intelligence structure at the ROCC and coordinates with the LEOC Documentation and Finance Sections. The primary responsibilities include, but are not limited to: • Report to the ROCC Planning and Intelligence function for assignment and briefing. • Establish and maintain a centralized system for damage assessment documentation. • Ensure all damage assessment reports are complete, accurate, and properly formatted.

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Role	Role Section	Role Description
		- Track submission and receipt of field data from DASTs and SERTs. - Maintain records required for PRIDA and Damaged Inventory List (DIL) development. - Ensure compliance with FEMA documentation and audit requirements. - Coordinate with Finance Section personnel for cost tracking and reimbursement support. - Maintain document control, versioning, and record retention protocols. - Support demobilization by ensuring all records are finalized and archived appropriately.
Regional Logistics Lead	Logistics	The Regional Logistics Lead ensures the availability, delivery, and management of all logistical resources—including materials, personnel, fuel, food, and lodging—needed to support emergency restoration activities in the region. The primary responsibilities include, but are not limited to: - Coordinate resource requests from SERTs and regional teams. - Manage regional staging sites and logistics hubs. - Track inventory of supplies and equipment in coordination with the Supply Unit Leader. - Coordinate vehicle fueling and maintenance through the Fleet Unit Leader. - Support the setup and maintenance of temporary facilities and camps. - Communicate logistical needs and shortages to the LEOC. - Ensure timely demobilization and resource recovery.
Contract Administrator (Food & Lodging)	Logistics	The Contract Administrator (Food & Lodging) is responsible for coordinating meals and lodging for all regional personnel and contractors involved in emergency restoration. The role ensures the health, comfort, and availability of basic needs for the workforce. The primary responsibilities include, but are not limited to: - Coordinate meal plans and schedules with vendors or catering services. - Identify lodging options and maintain occupancy records. - Ensure sanitation, safety, and comfort of food service areas and lodging facilities. - Track and report food and lodging usage. - Manage check-in/check-out processes for temporary housing. - Release unneeded rooms and avoid cost overruns. - Respond to workforce support needs throughout the event.

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Role	Role Section	Role Description
Regional Supply Unit Leader	Logistics	The Regional Supply Unit Leader oversees all aspects of material and supply management in the region, including the receipt, tracking, and distribution of items required for restoration. The primary responsibilities include, but are not limited to: • Track incoming and outgoing supplies and materials. • Coordinate supply deliveries to work sites and staging areas. • Maintain real-time inventory of critical items. • Anticipate and communicate supply shortages to the LEOC. • Ensure appropriate storage and handling of materials. • Work with Finance Section to track supply-related costs and documentation. • Support regional field crews and SERTs with supply needs.
Regional Facilities Unit Leader	Logistics	The Regional Facilities Unit Leader is responsible for coordinating and managing all facility-related support within the region during damage assessment and restoration operations. This includes ensuring that Regional Operations Control Centers (ROCCs), staging areas, and other operational facilities are established, maintained, and fully functional to support field personnel and emergency operations. The Regional Facilities Unit Leader reports to the Logistics Section through the regional structure and coordinates closely with Operations, Planning and Intelligence, as well as other Logistics functions. The primary responsibilities include, but are not limited to: • Report to the Logistics Section or designated regional supervisor for assignment and briefing. • Identify, establish, and maintain operational facilities, including ROCC support areas and staging locations. • Ensure facilities are safe, secure, and capable of supporting ongoing operations. • Coordinate setup of workspaces for damage assessment personnel, including DASTs and coordination staff. • Manage facility support requirements such as power, lighting, sanitation, and physical security. • Coordinate with IT/OT support staff to ensure connectivity and operational capability within facilities. • Support the establishment and management of staging areas for personnel, equipment, and materials. • Monitor facility capacity and request additional resources as needed. • Coordinate facility demobilization and return to normal operations once no longer required. • Maintain documentation of facility usage, costs, and

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Role	Role Section	Role Description
		support services for reimbursement and recordkeeping purposes.
Regional Contract Administrator Leader	Logistics	The Contract Administrator Region Leader supports the regional team by ensuring that all contractors operate within the terms of their agreements and that invoicing, scope of work, and documentation align with procurement standards. The primary responsibilities include, but are not limited to: • Track the use and expiration of active contracts in the region. • Ensure contractor compliance with scope, safety, and reporting requirements. • Communicate invoicing and documentation procedures to vendors. • Support contract amendments or extensions as needed. • Notify the Regional Logistics Chief Commander and LEOC Contract Administrator of any contractual issues. • Maintain detailed records for audit and reimbursement purposes. • Coordinate closely with the Regional Finance Lead.
Regional Transportation/ Fleet Unit Lead	Logistics	The Regional Fleet Unit Leader is responsible for managing transportation and fleet operations within the region, including vehicle assignment, maintenance, and fueling. The primary responsibilities include, but are not limited to: • Assign and track usage of vehicles and equipment. • Coordinate transportation for personnel and supplies. • Schedule vehicle fueling, maintenance, and repair. • Ensure fleet readiness and safety. • Support the movement of crews between locations or staging areas. • Identify transportation and fleet resource shortfalls. • Maintain documentation of all vehicle operations.
Regional Logistics Support Staff (IT OT)	Logistics	The Regional Logistics Support Staff (IT/OT) is responsible for providing technical and logistical support for information technology (IT) and operational technology (OT) systems that enable damage assessment operations. This includes ensuring that field teams and command centers have reliable access to communication systems, data platforms, and digital tools required for real-time damage reporting and situational awareness. This role reports to the Logistics Section through the regional structure and coordinates closely with Planning, Intelligence, and Operations. The primary responsibilities include, but are not limited to: • Report to the Logistics Section or designated regional supervisor for assignment. • Provide technical support for damage assessment tools, applications, and devices.

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Role	Role Section	Role Description
		• Ensure connectivity and functionality of data collection platforms (e.g., mobile apps, GIS systems). • Support integration of field data into centralized systems (e.g., LEOC platforms). • Troubleshoot IT/OT issues affecting DASTs, ROCC, and SERT operations. • Maintain communication systems supporting field and command operations. • Coordinate deployment and setup of IT/OT equipment in operational areas. • Ensure cybersecurity and data integrity of damage assessment systems. • Support offline data collection capabilities and synchronization when connectivity is restored. • Assist with system recovery and continuity during prolonged outages.
Regional Operations Section Lead	Operations	The Regional Operations Section Lead is responsible for the coordination and execution of all operational activities related to service restoration within the ROCC. This position serves as a critical component of the ROCC structure and acts as the lead for integrating and synchronizing all operational resources assigned to restoration efforts. The Regional Operations Section Chief ensures that field operations are aligned with established operational priorities and executed in accordance with the approved regional IAP. The Regional Operations Section Chief maintains direct communication with System Emergency Restoration Teams (SERTs) and ensures that all operational activities are effectively coordinated, monitored, and adjusted as needed to meet restoration objectives. This position reports directly to the ROCC Commander (IC) and works closely with Planning and Intelligence, Logistics, and other supporting functions. The primary responsibilities include, but are not limited to: • Report to the ROCC Incident Commander for operational briefings and direction. • Coordinate and oversee all restoration operations within the region. • Maintain direct communication with SERTs to ensure alignment with operational priorities and execution of the Regional IAP. • Monitor the progress of restoration activities and ensure objectives are being met. • Determine resource requirements and coordinate the allocation of crews to priority areas. • Coordinate and integrate all operational resources, including internal crews, contractors (CAT 1, CAT 2), and capital personnel. • Establish, communicate, and track operational priorities based on critical infrastructure and evolving incident needs.

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Role	Role Section	Role Description
		- Align internal and external resource capabilities with daily restoration objectives. - Synchronize and mobilize resources to ensure timely response to defined priorities. - Identify and escalate operational constraints or impediments that may impact mission execution. - Maintain continuous situational awareness of field operations and resource deployment. - Ensure all operational reports reflect current priorities and progress. - Coordinate with SERTs, internal crews, contractors, and Logistics to ensure unified execution toward common objectives.
System Emergency Restoration Team (SERT) Lead	Operations	The SERT Lead is responsible for managing field execution of emergency restoration activities, directly supervising SERT crews responding to critical incidents, including public safety hazards. The SERT Lead ensures efficient deployment of personnel and resources in coordination with the ROCC and LEOC. The primary responsibilities include, but are not limited to: - Prioritize and respond to emergency incidents (e.g., downed wires, life-threatening hazards). - Deploy and supervise SERT field crews. - Communicate situational updates and ETRs
Regional Finance Lead	Finance	The Regional Finance Lead is responsible for tracking and documenting all financial aspects of the regional emergency response, including expenditures, personnel time, and contract usage. The primary responsibilities include, but are not limited to: - Collect and validate time and expense reports for regional personnel. - Track regional expenditures and financial obligations. - Coordinate with Contract Administrator and Supply Unit on procurement tracking. - Support cost documentation required for FEMA or insurance reimbursement. - Provide financial updates to the LEOC Finance Section. - Maintain accurate records of financial transactions and approvals. - Ensure compliance with financial policies and guidelines. - Ensure timely demobilization and resource recovery.

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Appendix C: Critical Facilities

Below are identified critical facilities. This list is current as of May 2026 and given the dynamic nature of some categories, is subject to change. LUMA uses multiple electronic databases to collect and update customer information (critical facilities) accordingly, ensuring the most accurate information is available for emergency response actions.

Legend:

CDT: Center for Diagnostics and Treatment
 EB: Potable Water Pumping Station
 EBAS: Wastewater Pumping Station
 EMS: Emergency Medical Services
 OMME: Municipal Office for Emergency Management
 PF: Potable Water Filtration Plant
 PREMB: Puerto Rico Emergency Management Bureau
 RWWTP: Regional Wastewater Treatment Plant
 TQ: Potable Water Tank

ARECIBO REGION

Municipalities	Arecibo, Camuy, Hatillo, Quebradillas, Manatí, Vega Baja, Vega Alta, Utuado, Adjuntas, Jayuya, Ciales, Morovis, Florida

Arecibo District

Municipalities	Arecibo, Camuy, Hatillo, Quebradillas

Arecibo

Critical Facilities Level 1

Facility Type	Description
Hospital	Dr. Susoni Metropolitan Hospital
Hospital	Pavía Hospital
Police	State & Municipal Station
Fire	State Station
Emergency Management	PREMB Zone Office
Emergency Management	OMME
Emergency Shelter	Factor 5 – School
Emergency Shelter	Dr. Cayetano Coll y Toste – School
Emergency Shelter	S.U. Manuel Ruiz Gandía – School
Emergency Shelter	S.U. Barrio Sabana Hoyos (Nueva) – School

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Emergency Shelter	Trina Padilla de Sanz – School
Emergency Shelter	Community Center Res. Antonio Márquez Arbona
Water Infrastructure	Reservoir & EB (Superacueducto)
Water Infrastructure	EB & TQ Miraflores
Water Infrastructure	EB & TQ 2 million Gals.
Water Infrastructure	RWWTP Islote
Water Infrastructure	Dam & PF La Esperanza
Water Infrastructure	PF Río Arriba
Water Infrastructure	PF Esperanza
Water Infrastructure	PF Arecibo Urban
Water Infrastructure	EB Intermediate Río Arriba
Flood Control	Government Centro
Flood Control	Bo. Garrochales
Flood Control	Bosque Estatal Río Abajo
Military Facility	Army National Guard

Critical Facilities Level 2

Facility Type	Description
Medical Facility	FMC Arecibo Dialysis Center
Medical Facility	FMC Arecibo Norte Dialysis Center
Elderly Home	Egida de Miraflores
Elderly Home	Vistas del Mar Elderly
Water Infrastructure	EB & TQ Sabana Hoyos
Water Infrastructure	EBAS Sabana Hoyos
Water Infrastructure	EBAS Los Aires
Water Infrastructure	EBAS Dominguito 3
Water Infrastructure	EBAS Jardines de Arecibo
Water Infrastructure	EBAS Bajadero
Water Infrastructure	EBAS Islote 1
Water Infrastructure	EBAS Islote 3 – Costa del Mar
Water Infrastructure	EBAS Puerta del Este

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Water Infrastructure	EBAS Dominguito 1
Water Infrastructure	EBAS Jardines de San Rafael
Water Infrastructure	EBAS Pajuil
Water Infrastructure	EBAS Hacienda Toledo
Water Infrastructure	EBAS Villa Garrochales
Water Infrastructure	EBAS Dominguito 2
Water Infrastructure	Well Ojo de Agua
Water Infrastructure	Well Matadero 8
Water Infrastructure	Well Matadero 10
Water Infrastructure	Well Santana 2
Water Infrastructure	Well Santana 3
Water Infrastructure	Well Matadera 9
Water Infrastructure	EBAS Sabana Hoyos 2
Water Infrastructure	Well Matadero 6
Water Infrastructure	EBAS Islote 2
Water Infrastructure	Well Matadero 3
Water Infrastructure	Well Los Caños 1
Water Infrastructure	Well Esperanza 2
Water Infrastructure	Well Bajadero
Water Infrastructure	EBAS Coca Cola
Water Infrastructure	EB & TQ Medio Millón
Water Infrastructure	EB Midway
Water Infrastructure	EB Factor
Water Infrastructure	EB Calchoza 1, 2, & 3
Water Infrastructure	Well & EB Garrochales 4
Water Infrastructure	EBAS Los Pinos
Water Infrastructure	EB Jobos
Water Infrastructure	EB Hato Arriba
Water Infrastructure	EB Green
Water Infrastructure	EB Dominguito

Emergency Response Plan

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Water Infrastructure	Well Ojo de Agua 1, 2 & 5, & EB
Water Infrastructure	EB Cajones Garrochales
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Doctors' Center Arecibo
Medical Facility	CDT Policlínica Familiar Factor
Medical Facility	CDT Villa de Los Santos
Medical Facility	Metro Pavía Clinic
Medical Facility	Atlantic Medical Center
Medical Facility	Hatimedik
Camuy	
Critical Facilities Level 1	
Facility Type	Description
Water Infrastructure	Camuy-Hatillo RWWTP
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Antonio Reyes – School
Emergency Shelter	Luis F. Crespo – School
Emergency Shelter	Luis Felipe Rodríguez García – School
Emergency Shelter	Miguel F. Santiago Echegaray – School
Emergency Shelter	Ralph Waldo Emerson – School
Emergency Shelter	Amalia López de Avila – School
Critical Facilities Level 2	
Facility Type	Description
Water Infrastructure	EBAS Yeguada Membrillo
Water Infrastructure	Well Piedra Gorda 1
Water Infrastructure	EBAS Los Rodríguez
Water Infrastructure	EB Los Puertos
Water Infrastructure	EBAS Vistas de Camuy

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Water Infrastructure	EB Nueva Zanjas
Water Infrastructure	Los Maestros 2
Water Infrastructure	EB Echegaray
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Camuy Health Services, Inc
Water Infrastructure	Well Ciénaga 2
Water Infrastructure	Well Talavera 1
Hatillo	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Edelmiro Vélez
Emergency Shelter	Aníbal Reyes Belén - School
Emergency Shelter	Eugenio María De Hostos – School
Emergency Shelter	Lorenzo Coballes Gandía – School
Emergency Shelter	S.U. Rafeal Zamot Cruz – School
Emergency Shelter	Timoteo Delgado - School
Water Infrastructure	PF Quebrada
Water Infrastructure	PF Hatillo-Camuy
Water Infrastructure	Water reservoir & EB Hatillo-Camuy
Critical Facilities Level 2	
Facility Type	Description
Water Infrastructure	EBAS Hatillo Pueblo
Water Infrastructure	EBAS Carrizales
Water Infrastructure	EBAS Mar Azul
Water Infrastructure	Well Campo Alegre
Water Infrastructure	EBAS Los Corales

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Water Infrastructure	EB Las Piñas
Water Infrastructure	EB Buena Vista
Water Infrastructure	EB Bayaney
Water Infrastructure	EB Aibonito
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Hatimedik (Corporación de Servicios Médicos)
Water Infrastructure	Well Shalom
Water Infrastructure	EB Corcovado
Water Infrastructure	EB Carrizales
Quebradillas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Dr. Pedro Albizu Campos – School
Emergency Shelter	Ramón Emeterio Betances – School
Emergency Shelter	Manuel Ramos Hernández - School
Water Infrastructure	Water reservoir, PF & EB Quebradillas-San Antonio (Río Guajataca)
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Quebradillas Medical Center
Water Infrastructure	EBAS Terranova
Water Infrastructure	EB Las Margaritas (Guajataca)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Policlínica Shalom
Medical Facility	Centro Integrado de Servicios de Salud de Lares
Water Infrastructure	Well Quebradillas 2 (Glamourette)

Emergency Response Plan

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Utuado District	
Municipalities	Adjuntas, Jayuya, Utuado
Adjuntas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	José Emilio Lugo – School
Emergency Shelter	Rafael Aparicio Jiménez - School
Water Infrastructure	WWTP & EBAS
Water Infrastructure	Water reservoir (Represa Garzas)
Water Infrastructure	PF Olimpia
Water Infrastructure	PF Yahuecas
Water Infrastructure	PF Guilarte
Water Infrastructure	PF Garzas
Critical Facilities Level 1	
Facility Type	Description
Medical Facility	Centro de Salud Familiar Adjuntas
Water Infrastructure	EB San Joaquín
Water Infrastructure	EBAS La Playita
Water Infrastructure	EB Portillos
Water Infrastructure	EB Vegas
Water Infrastructure	Well Madre Isla
Water Infrastructure	EB Capaez
Water Infrastructure	Well PR-388
Water Infrastructure	PF Tanamá
Water Infrastructure	PF Ciénagas
Water Infrastructure	EB Llorosa
Critical Facilities Level 2	

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Facility Type	Description
Medical Facility	Hospital General Castañer, Inc. Adjuntas
Water Infrastructure	EB Guayo I
Water Infrastructure	EB Vegas 3
Water Infrastructure	TQ & EB Antenas
Water Infrastructure	EB Vegas 2
Water Infrastructure	EB Parcelas Irizarry
Water Infrastructure	EB Guayo II
Water Infrastructure	EB Saltillo
Water Infrastructure	EB La Llorosa 2
Jayuya	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Adrián Torres Torres – School
Emergency Shelter	Josefina León Zayas – School
Emergency Shelter	Miguel A. Sastre Oliver – School
Emergency Shelter	S.U. Antonia Serrano González – School
Emergency Shelter	S.U. Antonio Romero Muñiz – School
Emergency Shelter	San Patricio – School
Emergency Shelter	S.U. Nemesio Canales – School
Water Infrastructure	WWTP Jayuya
Water Infrastructure	Water reservoir Mameyes
Water Infrastructure	Water reservoir La Pica
Water Infrastructure	Water reservoir Jayuya
Water Infrastructure	Water reservoir Canalizo
Water Infrastructure	PF Jayuya
Water Infrastructure	PF La Pica

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Water Infrastructure	PF Canalizo
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Dr. Mario Canales Torresola
Industrial	Baxter Healthcare (Medical)
Water Infrastructure	Water reservoir & EB Jayuya
Water Infrastructure	Water reservoir & EB Mameyes
Water Infrastructure	EBAS La Monserrate
Water Infrastructure	TQ & EB Jesús Miranda
Water Infrastructure	EB Elpidio Collazo
Water Infrastructure	TQ & EB Veguita
Water Infrastructure	EB Río Grande
Water Infrastructure	EB Jauca
Water Infrastructure	EB Hoyo Planes
Water Infrastructure	EB Cementerio
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Hospital General Castañer, Inc. Policlínica Jayuya
Water Infrastructure	EB El Cemí
Utado	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital Metropolitano de la Montaña
Police	State Regional Station (Comandancia)
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Res. Jardines de Utado
Emergency Shelter	Community Center Res. Fernando L. García
Emergency Shelter	Antonio Tulla Torres – School

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Emergency Shelter	Bernardo González Colón – School
Emergency Shelter	Francisco Jordán – School
Emergency Shelter	José Vizcarrondo – School
Emergency Shelter	S.U. Marta Lafontaine – School
Emergency Shelter	Superior Vocacional – School
Military Facility	Army National Guard
Water Infrastructure	PF Utuado
Water Infrastructure	PF Santa Isabel
Water Infrastructure	PF Roncador
Water Infrastructure	PF Mameyes
Water Infrastructure	WWTP Utuado
Water Infrastructure	PF & EB Sabana Grande-Utuado
Water Infrastructure	Water reservoir & EB Roncador

Critical Facilities Level 2

Facility Type	Description
Elderly Home	Santa Isabel Senior Housing
Water Infrastructure	EBAS Calle Progreso
Water Infrastructure	EBAS Alturas de Utuado
Water Infrastructure	EBAS Pérez Matos
Water Infrastructure	EBAS San José
Water Infrastructure	EBAS Salto Abajo
Water Infrastructure	EB La Conchita
Water Infrastructure	EB Las Palmas

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Hatimedik
Water Infrastructure	Pression Control Valve Station
Water Infrastructure	EB Santa Bárbara
Water Infrastructure	EB Palmas
Water Infrastructure	EB Toño Carmona

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Water Infrastructure	TQ & EB La Mula 2
Water Infrastructure	TQ & EB La Mula 1
Water Infrastructure	EB Caonillas
Water Infrastructure	EB Candido Salva 1
Water Infrastructure	EB Candido Salva 2
Water Infrastructure	EB Las Palmas
Water Infrastructure	Water reservoir Caonillas
Water Infrastructure	EB Las Arenas

Vega Baja District

Municipalities	Barceloneta, Ciales, Florida, Manatí, Morovis, Vega Alta, Vega Baja

Barceloneta

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Community Center Magueyes
Emergency Shelter	Eli Ramos Rosario – School
Emergency Shelter	Fernando Suria Chávez – School
Emergency Shelter	Vicente Acevedo Ballester - School
Water Infrastructure	RWWTP
Water Infrastructure	TQ & EB (Superacueducto)
Water Infrastructure	Well Tiburones 1 & 2

Critical Facilities Level 2

Facility Type	Description
Medical Facility	Atlantic Medical Center
Elderly Home	Golden Living Barceloneta
Industrial	Abbott (Pharmaceutical)
Industrial	Abbvie (Pharmaceutical)
Water Infrastructure	EBAS Cimarrona

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Water Infrastructure	EBAS Punta Palmas 2
Water Infrastructure	EBAS Búfalo
Water Infrastructure	EBAS San Francisco
Water Infrastructure	Well Vizkase
Water Infrastructure	EBAS Punta Palmas 1
Water Infrastructure	Well Cimarrona
Water Infrastructure	Well Sabana Pike 2
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	Well Sabana Pike 1
Water Infrastructure	Well Cruce Dávila 1
Ciales	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Jaime Cora Ortiz – School
Emergency Shelter	Juan A. Corretjer – School
Emergency Shelter	Nueva Urbana – School
Emergency Shelter	S.U. Francisco Serrano – School
Emergency Shelter	S.U. Toribio Rivera _ School
Water Infrastructure	WWTP Ciales
Water Infrastructure	Water reservoir Cordillera
Water Infrastructure	PF Cordillera
Water Infrastructure	Water reservoir & PF Las Delicias
Water Infrastructure	PF Fronton
Water Infrastructure	PF Jaguas-Pesas
Critical Facilities Level 2	
Facility Type	Description

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Brisas de Jaguas
Water Infrastructure	EBAS Caliche
Water Infrastructure	EB Las Cumbres 1
Water Infrastructure	EBAS Las Guavas
Water Infrastructure	EBAS Casita
Water Infrastructure	EB Campamento
Water Infrastructure	EB El Coquí
Water Infrastructure	EB Fullana
Water Infrastructure	EB Cialitos Cruce
Water Infrastructure	EBAS Bo. Pesas
Water Infrastructure	EBAS Dos Ríos
Water Infrastructure	EB Rd. 149 Las Delicias
Water Infrastructure	EBAS Pueblito

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Clínicas de Cuidado Médico, Inc.
Medical Facility	PryMed Inc.
Water Infrastructure	EB Las Cumbres 2
Water Infrastructure	EB Expreso (Booster)
Water Infrastructure	EB La Cuarta
Water Infrastructure	EB Jaguas Ventana

Florida

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Juanita Ramírez González – School
Emergency Shelter	Leonardo Valentín Tirado – School

Critical Facilities Level 2

Emergency Response Plan

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Facility Type	Description
Water Infrastructure	EBAS Florida to Barceloneta
Water Infrastructure	Well Florida 9
Water Infrastructure	Well Florida 2
Water Infrastructure	Well Florida 10
Water Infrastructure	Well Florida 4
Water Infrastructure	Well Pajonal 1
Water Infrastructure	EB Perol 1
Water Infrastructure	EB Perol 2
Water Infrastructure	Well Florida 5
Water Infrastructure	EBAS Las Vegas
Water Infrastructure	EBAS Pajonal 1 thru 3
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Policlínica Familiar
Medical Facility	CDT Centro de Servicios Primarios de Salud, Inc.
Manatí	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Doctors Center Hospital
Hospital	Manatí Medical Center Dr. Otero López
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Antonio Vélez Alvarado – School
Emergency Shelter	Francisco Menéndez Balbañe – School
Emergency Shelter	Juan A. Sánchez Dávila - School
Water Infrastructure	TQ & EB Sabana Seca (Superacueducto)
Critical Facilities Level 2	
Facility Type	Description

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Medical Facility	CDT Dr. Cesar Rosa Febles
Medical Facility	The Renal Centre of Manatí
Medical Facility	Atlantic Healthcare Group of Manatí
Water Infrastructure	EB El Cuco 1
Water Infrastructure	EBAS Vistas de Atenas
Water Infrastructure	EBAS El Polvorín
Water Infrastructure	EBAS Parcelas Marquez
Water Infrastructure	EBAS Villas de Manatí
Water Infrastructure	EBAS Las Vueltas del 2
Water Infrastructure	EBAS Campo Alegre
Water Infrastructure	EBAS Coto Norte
Water Infrastructure	EBAS Monte Verde 1 & 2
Water Infrastructure	EBAS Luchetti
Water Infrastructure	EB La Conejera
Water Infrastructure	EB Palo Alto
Water Infrastructure	EB Cotto Sur
Water Infrastructure	EBAS Brisas de Mar Chiquita
Water Infrastructure	EBAS Jardines de Mónaco
Water Infrastructure	EB Cortés 1
Water Infrastructure	Well Pugnado 2
Water Infrastructure	EB Cortés 2
Water Infrastructure	Well Montebello 2
Water Infrastructure	Well Córdoba Dávila
Water Infrastructure	Well Montebello 4 & 5
Water Infrastructure	Well Manatí 1 & 2
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Policlínica Dr. Meléndez
Water Infrastructure	Well Manatí 3
Morovis	

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Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Angel G. Quintero Alfaro
Emergency Shelter	Francisco Rivera Claudio – School
Emergency Shelter	Josefa del Río Guerrero – School
Emergency Shelter	Juana M. Avilés - School
Water Infrastructure	Manatí WWTP
Water Infrastructure	Unibon WWTP
Water Infrastructure	Water reservoir & PF Sanamuerto
Water Infrastructure	Water reservoir & PF Morovis Norte
Water Infrastructure	TQ & EB Morovis Sur
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Morovis Community Health Center, Inc.
Water Infrastructure	EBAS Barahona 1
Water Infrastructure	EBAS Montellano
Water Infrastructure	EBAS Praderas de Morovis
Water Infrastructure	EBAS Palmas del Sur
Water Infrastructure	EBAS Valle de Barahona
Water Infrastructure	EBAS Cruz Rosario
Water Infrastructure	EBAS Torrecillas 1& 2
Water Infrastructure	EBAS Torrececillas 6
Water Infrastructure	EBAS Unibon 1thru 6
Water Infrastructure	EB Los Alicea
Water Infrastructure	EB Cocal
Water Infrastructure	Well Arraijanes
Water Infrastructure	EBAS Morovis urban

Emergency Response Plan

Base Plan

Vega Alta	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Apolo San Antonio – School
Emergency Shelter	José Pagán De Jesús – School
Emergency Shelter	Ladislao Martínez - School
Water Infrastructure	TQ & EB Vega Alta (Superacueducto)
Water Infrastructure	Vega Alta WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Morovis Community Health Center-Vega Alta
Medical Facility	Fresenius Medical Care Vega Alta (Dialysis)
Water Infrastructure	EBAS General Electric
Water Infrastructure	EBAS Villa Alegría
Water Infrastructure	EBAS Santa Ana
Water Infrastructure	EBAS Estancias de Cerro Gordo
Water Infrastructure	EBAS Palma Dorada Village
Water Infrastructure	EBAS Treasure Point
Water Infrastructure	EBAS Vega Dorada
Water Infrastructure	EBAS Ponderosa
Water Infrastructure	EBAS Corea
Water Infrastructure	EB Sabana Hoyos 2
Water Infrastructure	EB Pámpanos 2
Water Infrastructure	Well Monserrate
Water Infrastructure	EB Pámpanos 1
Water Infrastructure	EB Pica el Peje
Water Infrastructure	EB Maricao 2

Emergency Response Plan

Base Plan

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Centro de Medicina Primaria

Vega Baja

Critical Facilities Level 1

Facility Type	Description
Hospital	Centro Médico Wilma N. Vázquez
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office
Emergency Shelter	Agapito Rosario Rosario – School
Emergency Shelter	Lino Padrón Rivera – School
Emergency Shelter	S.U. Almirante Norte _ School
Emergency Management	Regional PREMB Office
Military Facility	Army National Guard
Water Infrastructure	Vega Baja WWTP
Water Infrastructure	Water reservoir, TQ & PF Almirante Sur

Critical Facilities Level 2

Facility Type	Description
Medical Facility	Vega Baja Medical CDT
Medical Facility	Fresenius Medical Care (Dialysis)
Industrial	Pfizer (Pharmaceutical)
Water Infrastructure	TQ & EB Quebrada Arenas
Water Infrastructure	EBAS Guarnicio Viejo
Water Infrastructure	EBAS Brasília
Water Infrastructure	EBAS Camino del Sol
Water Infrastructure	EBAS Estancias de Tortuguero
Water Infrastructure	EBAS Ciudad Real
Water Infrastructure	EBAS Ojo de Agua

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Jardines de Vega Baja
Water Infrastructure	EBAS Villa Los Pescadores
Water Infrastructure	EBAS El Rosario
Water Infrastructure	EBAS Villas de la Playa
Water Infrastructure	EBAS San Dementrio
Water Infrastructure	EB La Trocha
Water Infrastructure	EBAS Alturas de Vega Baja
Water Infrastructure	Well Algarrobo
Water Infrastructure	Well Almirante 1 & 2
Water Infrastructure	Well Villa Pinares
Water Infrastructure	Well Pugnado 1
Water Infrastructure	Well La Gloria
Water Infrastructure	TQ, EB & PF Almirante Sur

Critical Facilities Level 3

Facility Type	Description
Medical Facility	PryMed, Inc.
Water Infrastructure	TQ Ciudad Real

MAYAGÜEZ REGION

Municipalities	Aguadilla, Isabela, Moca, Rincón Aguada, Añasco, Mayagüez, Las Marías, Lares, Maricao, Hormigueros, San Sebastián, Cabo Rojo

Aguadilla District

Municipalities	Aguada, Aguadilla, Isabela, Lares, Las Marías, Maricao, Moca, Rincón, San Sebastián

Aguada

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire & EMS	State Station
Emergency Management	OMME
Emergency Shelter	Anselmo Villarubia – School
Emergency Shelter	Eladio Tirado López – School

Emergency Response Plan

Base Plan

Emergency Shelter	Lydia Meléndez – School
Emergency Shelter	Profesora Juana Rosario Carrero – School
Emergency Shelter	S.U. Epifanio Estrada - School
Water Infrastructure	Aguada RWWTP
Critical Facilities Level 2	
Facility Type	Description
Elderly Home	Aguada Elderly
Water Infrastructure	EBAS Los Robles
Water Infrastructure	EBAS Ruíz González
Water Infrastructure	EBAS Luyando
Water Infrastructure	EBAS Caceres
Water Infrastructure	EB Jagüey 1
Water Infrastructure	EB Coquí 1
Water Infrastructure	Well, TQ & EB Rafael Matías
Water Infrastructure	EB Chaporral
Water Infrastructure	EB Guayabo Cruces 1
Water Infrastructure	EB Piedras Blancas
Telecommunications	Centro Comunicación, TV, Radio, Celular, LUMA (Pico Atalaya)
Telecommunications	Navy Antenna
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Aguada Medical Center
Medical Facility	Costa Salud Community Health Center-Aguada
Water Infrastructure	EB Jagüey 2
Water Infrastructure	Well Atalaya
Water Infrastructure	TQ & EB Escalera
Water Infrastructure	EB Jagüey 2
Water Infrastructure	EB Atalaya 1 & 2
Water Infrastructure	EB Guayabo Cruces 3
Water Infrastructure	EB Cuesta Beatriz

Emergency Response Plan

Base Plan

Water Infrastructure	EB Guanábano
Water Infrastructure	EB Mayo
Aguadilla	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital Comunitario Buen Samaritano, Inc.
Police	State Station
Fire & EMS	State Station
Emergency Management	OMME
Emergency Management	Regional PREMB Office
Emergency Shelter	Benito Cerezo Vázquez -School
Emergency Shelter	Conchita Igartúa de Suárez – School
Emergency Shelter	Ester Feliciano Mendoza – School
Emergency Shelter	Juan Suárez Pelegrina - School
Airport	Rafael Hernández
Military Facility	Air National Guard
Military Facility	Army National Guard
Military Facility	Army Reserve
Homeland Security	USCG Air Station Borinquen
Water Infrastructure	PF & EB Caimital
Water Infrastructure	Water reservoir Calero
Water Infrastructure	Water reservoir Culebrinas
Water Infrastructure	PF Culebrinas
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Aguadilla Medical Services
Medical Facility	Metro Pavía Clinic-Aguadilla
Medical Facility	Fresenius Medical Care-Aguadilla
Medical Facility	The Renal Centre of Aguadilla
Elderly Home	Jardín del Atlántico

Emergency Response Plan

Base Plan

Elderly Home	Hogar Sagrado Corazón
Water Infrastructure	EBAS EL Prado
Water Infrastructure	EBAS Corrales
Water Infrastructure	EBAS Industrial Aguacate 1
Water Infrastructure	EBAS Troncal Este
Water Infrastructure	EBAS Industrial Montana
Water Infrastructure	EBAS Ramey 4
Water Infrastructure	EBAS San Antonio
Water Infrastructure	EBAS Villa Marbella
Water Infrastructure	EBAS Los Chiches
Water Infrastructure	EBAS Jardines de Maribel
Water Infrastructure	EBAS Guerrero Ward
Water Infrastructure	EBAS Villa Turística
Water Infrastructure	EB Palmar
Water Infrastructure	EB Centro
Correctional Facility	Guerrero
Telecommunication	Claro inc. Communication Center
Telecommunication	LUMA Communication Center

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Ramey Medical Group, CSP
Medical Facility	Hatimedik
Industrial	Suiza Dairy

Isabela

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center De la Juventud

Emergency Response Plan

Base Plan

Emergency Shelter	Ceferina Cordero Cordero – School
Emergency Shelter	Francisco Mendoza - School
Water Infrastructure	Isabela WWTP
Water Infrastructure	Water reservoir & EB Guajataca
Water Infrastructure	PF Isabela
Water Infrastructure	PF Guajataca
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Centro Isabelino de Medicina Avanzada
Medical Facility	Atlantis Healthcare Group of Isabela (Dialysis)
Elderly Home	Isabela Elderly
Water Infrastructure	EBAS Villa Pesquera
Water Infrastructure	EBAS Aguadilla Ave.
Water Infrastructure	EB Mantilla
Water Infrastructure	EBAS Industrial
Water Infrastructure	EBAS Vistas de Isabela
Water Infrastructure	EBAS Isla Azul
Water Infrastructure	EB Los Pinos
Water Infrastructure	EB Galateo 2
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Policlínica del Atlántico
Medical Facility	Migrant Health Center-Isabela Guerrero
Medical Facility	Migrant Health Center-Isabela Planas
Water Infrastructure	EB Llanadas
Water Infrastructure	EB Capiro
Lares	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital General Castañer

Emergency Response Plan

Base Plan

Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Castañer
Emergency Shelter	Daniel Vélez Soto – School
Emergency Shelter	Domingo Aponte Collazo – School
Emergency Shelter	Julio Lebrón Soto – School
Emergency Shelter	S.U. Angelina Delgado - School
Water Infrastructure	PF Espino
Water Infrastructure	Lares WWTP
Water Infrastructure	Water reservoir & PF Río Camuy
Water Infrastructure	Water reservoir & PF Quebrada
Water Infrastructure	Water reservoir & PF Urbana
Water Infrastructure	Water reservoir & PF Nueva
Water Infrastructure	Water reservoir & PF Vilella

Critical Facilities Level 2

Facility Type	Description
Medical Facility	Atlantic Healthcare Group of Lares (Dialysis)
Water Infrastructure	EBAS Lares Mills
Water Infrastructure	EBAS Monte Bello
Water Infrastructure	EBAS Palmas del Sol
Water Infrastructure	EBAS Altamira
Water Infrastructure	EBAS Planta Vieja
Water Infrastructure	EBAS Las Viera
Water Infrastructure	EBAS Brisas de Lares
Water Infrastructure	TQ & EB Espino Las Marías
Water Infrastructure	Well Vilella
Water Infrastructure	EBAS Villa Borinquen
Water Infrastructure	EB Vilella 1 & 2
Water Infrastructure	TQ & EB Camino Los Torres

Emergency Response Plan

Base Plan

Water Infrastructure	TQ & EB Las Piedras
Water Infrastructure	TQ & EB Espino 1 & 2
Water Infrastructure	TQ & EB Alemañy
Water Infrastructure	EB Guzmán
Water Infrastructure	TQ & EB Buenos Aires
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Lares Medical Center
Medical Facility	Centro Integral de Servicios de Salud de Lares
Water Infrastructure	EB Las Avispas 2
Water Infrastructure	TQ & EB Fronteras
Water Infrastructure	TQ y EB Doña Paula
Water Infrastructure	EB Los Millonarios
Water Infrastructure	EB Las Avispas
Las Marías	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Eugenio María de Hostos - School
Water Infrastructure	Las Marías WWTP
Water Infrastructure	PF Las Marías
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Las Marías Corporación Salud Marieña, Inc.
Elderly Home	Las Marías
Water Infrastructure	EBAS Las Bambúas
Water Infrastructure	EBAS Jardines
Water Infrastructure	EBAS Maravilla Sur 1, 2 & 3

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS El Hospital
Water Infrastructure	EB Maravilla Este
Water Infrastructure	EB Desarrollo Rural
Water Infrastructure	EB Palo Prieto
Water Infrastructure	EB Furnías 1
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Migrant Health Center – Las Marías
Water Infrastructure	TQ Palma Escrita
Water Infrastructure	EB Anones
Water Infrastructure	TQ & EB La Josefa
Maricao	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Indiera Fría – School
Emergency Shelter	La Carmen – School
Emergency Shelter	Raúl Ybarra - School
Water Infrastructure	PF Maricao
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Maricao Medical Center
Water Infrastructure	EB Bucarabones 1
Telecommunications	Centro Comunicación, TV, Radio, Celular, LUMA (Monte del Estado)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Migrant Health Center - Maricao
Water Infrastructure	EB El Quemado

Emergency Response Plan

Base Plan

Water Infrastructure	EB Bucarabones 2
Water Infrastructure	EB Indiera Alta 3
Moca	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital San Carlos Borromeo
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Critical Facilities Level 2	
Facility Type	Description
Elderly Home	Centro Residencial Edad Dorada
Water Infrastructure	EBAS Voladoras
Water Infrastructure	Well, TQ & EB Plata 1
Water Infrastructure	EBAS Cruz Isleta
Water Infrastructure	EBAS Urban
Water Infrastructure	EBAS El Parque
Water Infrastructure	EB Aceituna
Water Infrastructure	EB Cuba
Water Infrastructure	EB María1 & 2
Water Infrastructure	EB Cuchillas 1 & 2
Water Infrastructure	EB Rochas
Water Infrastructure	EB Galateo 1
Water Infrastructure	EB Galateo 2
Water Infrastructure	Well Plata 2
Water Infrastructure	EB Limón
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Costa Salud Community Health Center-Moca
Water Infrastructure	Well Naranjo 1

Emergency Response Plan

Base Plan

Water Infrastructure	Well Teófilo Vega
Water Infrastructure	Well Santiago Cortés
Water Infrastructure	Well Naranjo Seguí 2
Water Infrastructure	Well & TQ Urban
Water Infrastructure	EB Cuchillas 2
Water Infrastructure	EB María 3
Industrial	Industrial Zone

Rincón

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Manuel García Pérez – School
Emergency Shelter	Manuel González Melo
Water Infrastructure	EB Jagüey Cruces
Water Infrastructure	Well Pozo Puntas

Critical Facilities Level 2

Facility Type	Description
Elderly Home	Santa Rosa Elderly
Water Infrastructure	EB Calvache-Atalaya 1
Telecommunications	Claro, Inc. Communication Center

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Costa Sald Community Health Center-Rincón
Water Infrastructure	EB Atalaya 1

San Sebastián

Critical Facilities Level 1

Facility Type	Description
Police	State Station

Emergency Response Plan

Base Plan

Fire	State Station
Emergency Management	OMME
Emergency Shelter	Aurora Méndez Charneco – School
Emergency Shelter	Patria Latorre - School
Water Infrastructure	TQ & EB Intermedio
Water Infrastructure	EB Piedras Blancas 1 & 2
Water Infrastructure	EB Saltos 1
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Pepino Health Group
Medical Facility	Atlantis Healthcare of San Sebastián (Dialysis)
Elderly Home	Egida El Jibarito
Water Infrastructure	EB Salto Collazo
Water Infrastructure	EB Alto Sano 2
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Policlínica Dr. Rodríguez CDT
Medical Facility	Migrant Health Center – San Sebastián
Water Infrastructure	EB Abrahonda
Government	Municipal Courthouse
Mayagüez District	
Municipalities	Añasco, Cabo Rojo, Hormigueros, Mayagüez, San Germán
Añasco	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Carmen Casasús Martí - School
Emergency Shelter	Isabel Suárez – School

Emergency Response Plan

Base Plan

Emergency Shelter	Luis Muñoz Marín – School
Water Infrastructure	Water reservoir & EB Río Añasco
Water Infrastructure	PF Espino
Water Infrastructure	Water reservoir & EB Crudas Añasco
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT New Medical Quality Services
Erderly Home	The Francis Villages
Water Infrastructure	EBAS Añasco
Water Infrastructure	EBAS Sierra Maestra
Water Infrastructure	EBAS Pozo Hondo
Water Infrastructure	EBAS Valles de Añasco
Water Infrastructure	EBAS Vistas del Río
Water Infrastructure	TQ & EB Nevada
Water Infrastructure	EB Caguabo Rd. 115
Water Infrastructure	TQ & EB Calbache Barrero
Water Infrastructure	EB Cerro Gordo 1 & 2
Water Infrastructure	EB Vistas del Río
Water Infrastructure	EB Casey 1 & 2
Water Infrastructure	EB SPS Tornillos
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB La Choza 1 & 2
Water Infrastructure	EB Caracol 1
Water Infrastructure	EB Caracol 2
Water Infrastructure	EB La Choza 2
Water Infrastructure	EB Humates Ajíes
Water Infrastructure	TQ & EB Caguabo 2
Water Infrastructure	EB Carreras 2 & 3
Water Infrastructure	EB Tello Valentín

Emergency Response Plan

Base Plan

Industrial	Industrial zone
Cabo Rojo	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital Metropolitano Psiquiátrico de Cabo Rojo
Police	State & Municipal Station
Police	Maritime Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Antonio AcarónCorrea – School
Emergency Shelter	Mildred Arroyo Cardoza – School
Emergency Shelter	Monserate León Irizarry – School
Emergency Shelter	Severo E. Colberg Ramírez - School
Military Facility	Army National Guard
Water Infrastructure	PF Betances
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Cabo Rojo
Water Infrastructure	EBAS Coqu161 Bajura
Water Infrastructure	EBAS Mansiones de Cabo Rojo
Water Infrastructure	EBAS El Deportivo
Water Infrastructure	EBAS La Garita
Water Infrastructure	EBAS Cofresí
Water Infrastructure	EBAS Girasol
Water Infrastructure	EBAS Concepción
Water Infrastructure	EBAS Ballajá
Water Infrastructure	EBAS Pueblo
Water Infrastructure	EBAS Boquerón
Water Infrastructure	EBAS Villa Taína
Water Infrastructure	EBAS Monte Río

Emergency Response Plan

Base Plan

Water Infrastructure	EB Pepilla
Water Infrastructure	EBAS El Remanso
Water Infrastructure	EBAS Monte Grande
Water Infrastructure	Well Club de Leones
Water Infrastructure	Well Cabo Rojo III
Water Infrastructure	EBAS Periche
Water Infrastructure	EBAS Puerto Real I & II
Water Infrastructure	Well Margarita
Water Infrastructure	Well Cabo Rojo 2
Water Infrastructure	EB La 15
Water Infrastructure	EB La 22
Water Infrastructure	EB Mc Dougal
Telecommunications	Tower (Boquerón)
Telecommunications	Tower (Combate)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Migrant Health Center de Cabo Rojo`
Water Infrastructure	EB La Pepilla
Water Infrastructure	EB Monte Real
Water Infrastructure	Well El Remanso
Water Infrastructure	EB Parabueyon
Water Infrastructure	EB El Brujo
Water Infrastructure	EB Cerrillos Nuevas
Water Infrastructure	TQ La Pepilla

Hormigueros

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & EMS

Emergency Response Plan

Base Plan

Emergency Shelter	Community Center Nelson del Valle
Emergency Shelter	Community Center Carr. Nueva
Emergency Shelter	Efrén Rodríguez Toro – School
Emergency Shelter	Segundo Ruiz Belvis – School
Emergency Shelter	Convention Center Bobby Cruz
Water Infrastructure	Well Hormigueros 2

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Hormigueros
Elderly Home	Monserate Elderly I
Elderly Home	Monserate Elderly II
Elderly Home	Hogar San José
Telecommunications	Tower Rd. 343
Telecommunications	Claro, Inc. Tower (Miradero)

Critical Facilities Level 3

Facility Type	Description
Water Infrastructure	Well Hormigueros II

Mayagüez

Critical Facilities Level 1

Facility Type	Description
Hospital	Hospital Bella Vista
Hospital	Hospital Perea
Hospital	Hospital San Antonio
Hospital	Mayagüez Medical Center
Police	State & Municipal Station
Police	State Region (Comandancia)
Fire	State Station
Emergency Management	OMME & EMS
Emergency Management	PREMB Zone Office
Emergency Shelter	Elpidio H. Rivera – School

Emergency Response Plan

Base Plan

Emergency Shelter	Eugenio María de Hostos - School
Military Facility	Army National Guard
Water Infrastructure	PF Ponce de León
Water Infrastructure	Mayagüez RWWTP
Water Infrastructure	PF Miradero
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Fresenius Medical Care North (Dialysis)
Medical Facility	Fresenius Medical Care (Dialysis)
Elderly Home	San Fernando Elderly
Elderly Home	Plaza Barcelona
Water Infrastructure	EBAS Colombia
Water Infrastructure	EBAS Llavat
Water Infrastructure	EBAS Santurce
Water Infrastructure	EBAS Hernández Rosa
Water Infrastructure	Well Las Vegas
Water Infrastructure	EBAS Monterrey
Water Infrastructure	EBAS Sábalos
Water Infrastructure	EBAS Guanajibo Homes
Water Infrastructure	EBAS Roosevelt
Water Infrastructure	EBAS Concordia
Water Infrastructure	EBAS Paraíso Rd.
Water Infrastructure	EBAS Ramírez de Arellano
Water Infrastructure	Well Parcela Isabel
Water Infrastructure	Well Marín 1 & 2
Water Infrastructure	EB Liceo
Water Infrastructure	Well Japonés
Water Infrastructure	Well Rosario 2 & 3
Water Infrastructure	EB Camino Las Calceas
Water Infrastructure	EB Sunsire

Emergency Response Plan

Base Plan

Water Infrastructure	EB Limón 1
Water Infrastructure	EB Limón Monte
Water Infrastructure	EB Sanatorio
Water Infrastructure	EB Relevo Marini
Water Infrastructure	EB Leguizamo
Water Infrastructure	EB Yan García
Water Infrastructure	EB Violetas1 & 2
Water Infrastructure	EB Limón 2
Water Infrastructure	EB Malezas
Water Infrastructure	EB Rolón
Water Infrastructure	EB Belmonte
Water Infrastructure	EB Limón 3
Water Infrastructure	EB EB Cambalache
Water Infrastructure	Well Bateyes
Correctional Facility	El Limón
Telecommunications	Tower (Monte de la Unión)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT Asociación de Maestros
Medical Facility	Clínica Yagüez
Medical Facility	Policlínica Bella Vista
Medical Facility	Migrant Health Center – Clínica de Proyectos
Medical Facility	Migrant Health Center – Clínica Principal
Medical Facility	Migrant Health Center – La Salud
Water Infrastructure	EB Polvorín
Water Infrastructure	EB Los Torres
Water Infrastructure	Well Marini 1 & 2
Water Infrastructure	EB Leclerc
Water Infrastructure	EB Luis Ortiz
Water Infrastructure	TQ Belmonte

Emergency Response Plan

Base Plan

Industrial	Industrial Zone
San Germán	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital de la Concepción
Hospital	Hospital Metropolitano de San Germán
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center El Recreo
Emergency Shelter	Community Center Poblado Rosario
Emergency Shelter	Community Center Bo. Guamá
Emergency Shelter	Arquelio Torres Ramírez Coliseum
Water Infrastructure	San Germán WWTP
Water Infrastructure	PF Alto Guamá
Water Infrastructure	Water reservoir Río Caín
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Fresenius Medical Care San Germán (Dialysis)
Medical Facility	The Renal Centre of San Germán
Elderly Home	Lomas de Santa Marta
Elderly Home	Egida de la Concepción
Water Infrastructure	EBAS El Poli
Water Infrastructure	EBAS El Pedregal
Water Infrastructure	EBAS El Real
Water Infrastructure	EB La Tea
Water Infrastructure	EBAS Quintas del Rey
Water Infrastructure	EBAS Sabana Eneas
Water Infrastructure	EBAS La Nueva Salamanca
Water Infrastructure	EBAS Santa Marta

Emergency Response Plan

Base Plan

Water Infrastructure	EB Rosario Alto
Water Infrastructure	Well Caín Alto Capriles
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Calabaza
Water Infrastructure	Well Duey 1 & 2
Water Infrastructure	EB Duey Alto
Water Infrastructure	TQ La Tea
Water Infrastructure	TQ & EB Los Jiménez
Water Infrastructure	EB Cotui
Water Infrastructure	EB La Tuna
PONCE REGION	
Municipalities	Arroyo, Coamo, Guánica, Guayama, Guayanilla, Juana Díaz, Lajas, Maunabo, Peñuelas, Ponce, Sabana Grande, Salinas, Santa Isabel, Patillas, Villalba, Yauco
Yauco District	
Municipalities	Guánica, Lajas, Peñuelas, Sabana Grande, Yauco
Guánica	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Jardines de Guánica
Emergency Shelter	Community Center Fuig
Emergency Shelter	Community Center Luis Muñoz Marín
Emergency Shelter	Community Center Santa Juanita
Emergency Shelter	Agripina Seda – School
Emergency Shelter	María L. Mc Dougall – School
Emergency Shelter	José Rodríguez Soto -School
Emergency Shelter	Franklin Roosevelt – School

Emergency Response Plan

Base Plan

Water Infrastructure	Guánica WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Servicios de Salud Juan Santiago
Water Infrastructure	EBAS Playa Guánica
Water Infrastructure	EBAS Bacó
Water Infrastructure	EBAS Ensenada
Water Infrastructure	EBAS Oasis (Bélgica)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Migrant Health Services - Guánica
Water Infrastructure	Well M
Water Infrastructure	EB La Luna
Water Infrastructure	TQ & EB Monte Pelao
Water Infrastructure	Well Santa Rita
Water Infrastructure	Well Palomas
Water Infrastructure	EB Montalva
Water Infrastructure	EB Fuig
Water Infrastructure	Well Rd. 116 Guanica 1
Water Infrastructure	Well Caños 1
Water Infrastructure	Well Magueyes
Water Infrastructure	Well Guánica 3
Lajas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Cancha Juan E. Lluch
Emergency Shelter	Leonides Morales Rodríguez – School

Emergency Response Plan

Base Plan

Emergency Shelter	Rosendo Matienzo Cintrón
Emergency Shelter	Gym Luis Pimba Alvarado
Water Infrastructure	PF Lajas Nueva
Water Infrastructure	Lajas WWTP

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Servicios Médicos del Valle de Lajas
Water Infrastructure	EBAS Estancias del Parra 2
Water Infrastructure	EBAS Playita Rosada
Water Infrastructure	EBAS La Parquera II
Water Infrastructure	EBAS Palmarejo 2
Water Infrastructure	EBAS Tokio 1
Water Infrastructure	EBAS Submarino
Water Infrastructure	EBAS Palmarejo
Water Infrastructure	Estancias del Parra 2

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Migrant Health Center de Lajas
Water Infrastructure	EB Candelaria

Peñuelas

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Tallaboa Encarnación
Emergency Shelter	Adolfo Grana Rivera – School
Emergency Shelter	Daniel Webster – School
Emergency Shelter	Miguel González Bauzá - School
Water Infrastructure	Peñuelas WWTP

Emergency Response Plan

Base Plan

Water Infrastructure	PF Peñuelas Urban
Water Infrastructure	PF Malpaso Nueva
Water Infrastructure	PF Jaguas Ceiba
Water Infrastructure	PF Rucio
Water Infrastructure	PF Guayanés
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	MED Centro Peñuelas
Water Infrastructure	EBAS Río Sol
Water Infrastructure	Well Carlos Andinos
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Cuevas
Water Infrastructure	EB Vista Bahía
Water Infrastructure	EB Felipe Quiñones
Water Infrastructure	EB Caracoles
Water Infrastructure	EB La Haya
Water Infrastructure	TQ & EB Mal Paso 2
Water Infrastructure	TQ & EB Barreal
Water Infrastructure	EB Kennedy
Sabana Grande	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Blanca Malaret – School
Emergency Shelter	Luis A. Negrón López - School
Water Infrastructure	PF Maginas
Water Infrastructure	Water reservoir & PF Monte de Estado

Emergency Response Plan

Base Plan

Military Facility	Army National Guard
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Metro Pavía Clinic – Sabana Grande
Medical Facility	Fresenius Medical Care - Dialysis
Water Infrastructure	EB Lluberías (Susua)
Water Infrastructure	EBAS La Máquina 1 & 2
Water Infrastructure	EBAS Santa Ana (mansiones de Sabana Grande)
Water Infrastructure	EBAS Santa Ana
Water Infrastructure	EBAS Minillas
Water Infrastructure	EBAS Sabana 1 & 2
Water Infrastructure	EBAS Fomento
Water Infrastructure	EBAS San Antonio
Water Infrastructure	EBAS Sábana Grande
Water Infrastructure	EB Cerro Gordo
Water Infrastructure	EBAS Las Guaras
Water Infrastructure	EB Pitcher 1
Water Infrastructure	EB Molina 1, 2 & 3
Water Infrastructure	Well Rayo La Plata
Water Infrastructure	EB La Torre 1
Water Infrastructure	EB Cedro 1
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Migrant Health Center
Water Infrastructure	EB Arrendado
Water Infrastructure	TQ La Pica
Water Infrastructure	EB Rincón
Water Infrastructure	EB Santana 2 & 3
Yauco	
Critical Facilities Level 1	

Emergency Response Plan

Base Plan

Facility Type	Description
Hospital	Hospital Pavía Yauco
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Almcigo Bajo
Emergency Shelter	Almcigo Alto 2 (Doris Martínez) – School
Emergency Shelter	Inés María Mendoza – School
Emergency Shelter	Lena M. Franceschi
Emergency Shelter	S.U. Jaime Castañer - School
Military Facility	Army Reserve
Water Infrastructure	Water reservoir Ranchera
Water Infrastructure	PF Yauco
Water Infrastructure	Water reservoir Río Prieto (Duey)
Water Infrastructure	PF Rancheras
Water Infrastructure	Yauco WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Fresenius Medical Care - Dialysis
Elderly Home	Estancia Dorada
Water Infrastructure	EBAS Luchetti
Water Infrastructure	EBAS Montblanc
Water Infrastructure	EBAS Villas del Cafetal
Water Infrastructure	EBAS San Francisco
Water Infrastructure	EBAS Jácanas
Water Infrastructure	EBAS Palomas
Water Infrastructure	EBAS Barinas Nuevas
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Migrant Health Care

Emergency Response Plan

Base Plan

Water Infrastructure	TQ & EB Carrizales
Water Infrastructure	TQ & EB La Linterna (Almalcigo Bajo)
Water Infrastructure	EB Jácanas
Water Infrastructure	EB View Hill
Water Infrastructure	EB Isleta 1& 2
Water Infrastructure	EB La Palmita (Lomas del Viento)
Water Infrastructure	EB Algarrobo (Los Pérez)
Water Infrastructure	TQ La Jurada
Water Infrastructure	EB Javilla
Water Infrastructure	EB Cruzadas
Water Infrastructure	EB Cotui
Water Infrastructure	EB La Jurada
Water Infrastructure	TQ & EB Los Alvarez
Water Infrastructure	Well Río Loco
Water Infrastructure	TQ & EB Rancheras
Water Infrastructure	EB Caimito
Water Infrastructure	TQ & EB Urbano
Water Infrastructure	EB Susua Baja
Water Infrastructure	EB Palomas
Water Infrastructure	EB Sierra Alta
Water Infrastructure	EB Barinas
Industrial	Sartorius (Biopharmaceutical products)

Ponce District

Municipalities	Juana Díaz, Ponce, Villalba

Juana Díaz

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME

Emergency Response Plan

Base Plan

Emergency Shelter	Dr. Máximo Donoso Sánchez – School
Emergency Shelter	Francisco Prado Picart – School
Emergency Shelter	Manuel Fernández Juncos – School
Emergency Shelter	Zolio Gracia – School
Emergency Shelter	Pedro “Nini” Colón – School
Flood Control	Juana Díaz Pump
Military Facility	Fort Allen
Military Facility	Army Reserve
Water Infrastructure	Water reservoir & EB La Barricada
Critical Facilities Level 2	
Facility Type	Description
Medical Facilities	Biomedical Applications of Juana Díaz - Dialysis
Water Infrastructure	EBAS Pastillo
Water Infrastructure	EBAS Leonardo Santiago
Water Infrastructure	EBAS Monte Sol
Water Infrastructure	EBAS La Potala
Water Infrastructure	EBAS Guayabal 1 & 2
Water Infrastructure	Well Experimental
Water Infrastructure	EBAS Las Lomas
Water Infrastructure	EBAS Paseo de los Reyes
Water Infrastructure	Well Agustinillo
Water Infrastructure	EBAS Villa Húcares
Water Infrastructure	EBAS Colinas de Verde Azul
Water Infrastructure	EBAS Estancias del Sur
Water Infrastructure	EB Cuevas
Water Infrastructure	Well Amelia 1
Water Infrastructure	EBAS Santa Marta
Telecommunication	Radio Antenna (WWCBG 1060 AM)
Critical Facilities Level 3	
Facility Type	Description

Emergency Response Plan

Base Plan

Medical Facility	CDT Centro San Cristobal
Medical Facility	Med Centro Juana Díaz
Water Infrastructure	Well Experimental
Water Infrastructure	EB Guayabal 2 & El Cerro (Guayabal 3)
Water Infrastructure	EB El Lago
Water Infrastructure	EB Maga
Water Infrastructure	EB Villa de Río Cañas
Water Infrastructure	Well Los Reyes
Water Infrastructure	Well La Fe
Water Infrastructure	Well Vertedero
Water Infrastructure	EB Ubeyes
Water Infrastructure	Well Río
Water Infrastructure	EB El Quemado
Water Infrastructure	Well Dayan
Water Infrastructure	EB Corral Falso
Water Infrastructure	Well Estancias del Sur
Water Infrastructure	Well Amelia 2
Water Infrastructure	EB Provincias
Water Infrastructure	Well Aruz Cancha & Aruz Puente
Water Infrastructure	Well Ceiba & Solimar
Industrial	Cooper Vision

Ponce

Critical Facilities Level 1

Facility Type	Description
Hospital	Hospital Damas
Hospital	Hospital Menonita Ponce
Hospital	Hospital Metropolitano Dr. Manuel de la Pila
Hospital	Hospital Psiquiatría Forense
Hospital	Hospital San Cristobal
Police	State & Municipal Station

Emergency Response Plan

Base Plan

Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office
Emergency Shelter	Community Center Aristides Chavier
Emergency Shelter	Community Center Dr. Pila
Emergency Shelter	Community Center Ernesto Ramos Antonini
Emergency Shelter	Berardino Corderro Bernard – School
Emergency Shelter	Dr. José Celso Barbosa – School
Emergency Shelter	Josefina Boya León – School
Emergency Shelter	Lila M. Mayoral - School
Emergency Shelter	Llanos del Sur – School
Emergency Shelter	Santa Teresita - School
Flood Control	Represa Cerrillos
Flood Control	Represa Portugués
Military Facility	Army National Guard
Military Facility	Army Reserve
Water Infrastructure	PF Magueyes
Water Infrastructure	PF Vieja – Portugués
Water Infrastructure	Ponce WWTP
Water Infrastructure	Water reservoir & PF Hogares Seguros
Water Infrastructure	PF Tibes
Water Infrastructure	PF Guaraguo
Water Infrastructure	PF Real Anón
Water Infrastructure	PF Coto Laurel
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Centro de Emergencia y Medicina Integrada
Medical Facility	Fresenius Medical Care West Ponce Dialysis
Medical Facility	Fresenius Medical Care Ponce Centro -Dialysis
Medical Facility	Fresenius Medical Care – Dialysis

Emergency Response Plan

Base Plan

Medical Facility	Atlantis Healthcare Group of Ponce
Elderly Home	Egida Sor Isolina Ferré
Elderly Home	Ponce Elderly Housing/Estancias Doradas
Elderly Home	Inmobiliaria La Trinidad
Correctional Facility	Cárcel de Menores
Correctional Facility	Las Cucharas
Government	Courthouse
Water Infrastructure	EBAS Los Caobos
Water Infrastructure	EBAS Valle Real
Water Infrastructure	EBAS Carenero
Water Infrastructure	EBAS La Ceiba
Water Infrastructure	EBAS Salazar
Water Infrastructure	EBAS Coto Laurel
Water Infrastructure	EBAS Costa Caribe
Water Infrastructure	EBAS Villa Flores
Water Infrastructure	EBAS El Tuque
Water Infrastructure	EBAS Machuelo
Water Infrastructure	EBAS Constancia (Caracoles)
Water Infrastructure	EBAS Villa Grillasca
Water Infrastructure	EBAS Alta Vista
Water Infrastructure	Well Centro Comercial
Water Infrastructure	EBAS Industrial Sabanetas
Water Infrastructure	EB Relevo La Yuca
Water Infrastructure	EB Campo Alegre
Water Infrastructure	EB 4ta Extensión El Monte
Water Infrastructure	EBAS Mercedita
Water Infrastructure	EB Brisas del Caribe 1 & 2
Water Infrastructure	EB El Vigía
Water Infrastructure	Well Camino de Sur
Water Infrastructure	Well Blasini

Emergency Response Plan

Base Plan

Water Infrastructure	Los Chinos
Water Infrastructure	Well Alhambra 1 & 2
Water Infrastructure	EBAS Perla del Sur
Water Infrastructure	Well Ramos Atonini
Water Infrastructure	Well UPR
Water Infrastructure	Well Valle Verde
Water Infrastructure	EBAS Las Americas
Water Infrastructure	EBAS Camino del Sur
Water Infrastructure	Well Fagot
Water Infrastructure	EB Obras Públicas
Water Infrastructure	TQ & EB Tanque Nuevo #2
Water Infrastructure	EBAS Las Delicias
Water Infrastructure	Well Febles
Water Infrastructure	EB Cerca del Cielo
Water Infrastructure	EB Villa Paraíso
Water Infrastructure	EB Relevo Collado 1 & 2
Water Infrastructure	Well La Mocha 1 & 3
Water Infrastructure	Well Restaurada 6
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Canas Medical Center
Medical Facility	CDT Primary Medical Center
Medical Facility	Centro San Cristobal – Coto Laurel
Medical Facility	Metro Pavía Clinic - Ponce
Medical Facility	Med Centro – Main Clinic
Medical Facility	Med Centro – Chronic Conditions Clinic
Medical Facility	Med Centro – El Tuque
Medical Facility	Med Centro - La Cantera
Water Infrastructure	EB Jacaranda
Water Infrastructure	TQ & EB El Monte

Emergency Response Plan

Base Plan

Water Infrastructure	TQ Punta Diamante
Water Infrastructure	EB Río Chiquito
Water Infrastructure	TQ Agustinillo
Water Infrastructure	EB Glenview-Maragüez
Water Infrastructure	EB Cerrillos
Water Infrastructure	EB Ausubos
Water Infrastructure	EB Marrueños
Water Infrastructure	TQ & EB envieu-Lucas
Water Infrastructure	TQ Raíces
Water Infrastructure	EB Baramaya
Water Infrastructure	EB Sabanetas
Water Infrastructure	EB Quebrada Limón
Water Infrastructure	EB Cerrillos
Water Infrastructure	EB Collado 2
Water Infrastructure	EB Los Robles
Industrial	Medtronic (Medical Devices)
Industrial	Zimmer Biomet (Medical Devices)

Villalba

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Lysander Borrero- School
Emergency Shelter	Superior Vocacional Nueva – School
Emergency Shelter	S.U. Hatillo Silvia Torres - School
Water Infrastructure	Water reservoir Compresor Los Operadores
Water Infrastructure	Water reservoir Compresor Los Pescadores
Water Infrastructure	PF & EB Aceitunas, EB Aceitunas 2 thru 4
Water Infrastructure	EB Cruda Lago Toa Vaca & Control Valve

Emergency Response Plan

Base Plan

Water Infrastructure	PF Jagueyes
Water Infrastructure	PF Lago Toa Vaca
Water Infrastructure	PF Apeadero
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro San Cristóbal
Medical Facility	CDT Specialty Family Health Center
Medical Facility	Med Centro
Elderly Home	Villalba Elderly
Water Infrastructure	EBAS Jacaguas
Water Infrastructure	EB Palmasola Nueva
Water Infrastructure	EB Toro Negro
Water Infrastructure	EBAS Jagueyes
Water Infrastructure	EB Camarones
Water Infrastructure	EB Romero
Water Infrastructure	EB Jagüeyes
Water Infrastructure	Well Dajaos
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Cépedes 1 thru 3
Water Infrastructure	EB Toyosa
Water Infrastructure	EB Higuero
Water Infrastructure	EB El Semil
Water Infrastructure	TQ & EB Cerro Gordo
Water Infrastructure	EB Dajaos 1 & 2
Water Infrastructure	EB Palma Sol 2
Industrial	Medtronic (Medical Devices)
Guayama District	
Municipalities	Arroyo, Coamo, Guayama, Maunabo, Patillas, Salinas
Arroyo	

Emergency Response Plan

Base Plan

Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	José Horacio Cora – School
Emergency Shelter	José M. Massari – School
Emergency Shelter	Superior Urbana Nueva - School
Critical Facilities Level 2	
Facility Type	Description
Water Infrastructure	Well Belinda
Water Infrastructure	EB Sierrita
Water Infrastructure	EBAS Portal de Ancones
Water Infrastructure	EBAS Palmas
Water Infrastructure	EB Troncal Arroyo
Water Infrastructure	Well Yaurel 1 & 2
Water Infrastructure	EB Antigua 1 & 2
Water Infrastructure	EB Los Morales
Water Infrastructure	Well Urbano 1
Water Infrastructure	EB Palmarejo
Water Infrastructure	Well Texaco
Water Infrastructure	EB Santa Clara (Yaurel)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Centro de Salud Familiar Dr. Julio Palmieri
Water Infrastructure	EB Jacana 2
Water Infrastructure	EB El Mortal
Water Infrastructure	TQ & EB Jacana 1 & 2
Water Infrastructure	EB Barriada Marín
Industrial	Stryker (Medical Devices)

Emergency Response Plan

Base Plan

Coamo	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Centro de Edad Dorada Villa Madrid
Emergency Shelter	Centro Envejecientes Florencia Cruz Reyes
Emergency Shelter	Centro Envejecientes Víctor Alvarado Correa
Emergency Shelter	Benjamín Franklin – School
Emergency Shelter	José Felipe Zayas – School
Emergency Shelter	Román Colón Correa – School
Emergency Shelter	S.U. Eugenio Nazario Soto – School
Emergency Shelter	Sabino Rivera Berríos – School
Emergency Shelter	Susana Rivera – School
Water Infrastructure	PF Coamo Urbana
Military Facility	Army National Guard
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Menonita
Elderly Home	Egida Vista del Mar
Elderly Home	Plaza Apartments
Water Infrastructure	EBAS Vale Arriba
Water Infrastructure	EB La Emisora
Water Infrastructure	EB Sierrita
Water Infrastructure	EB Los Llanos
Water Infrastructure	EBAS Coamo Main
Water Infrastructure	EBAS Parque de las Flores
Water Infrastructure	EBAS Niágara (Villa Madrid)
Water Infrastructure	EBAS Santa Ana

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Puerto Arturo
Water Infrastructure	EBAS Provincias del Río
Water Infrastructure	EBAS San Idelfonso
Water Infrastructure	EBAS Valle Escondido
Water Infrastructure	EB Niágara
Water Infrastructure	EB Las Palmas
Telecommunication	Radio Antenna (WCPR 1450 AM)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Med Centro Coamo
Water Infrastructure	EB Relevo Algarrobo 1
Water Infrastructure	EB Cuyón 2
Water Infrastructure	EB Sabana Hoyos
Water Infrastructure	EB Santa Catalina
Water Infrastructure	EB Cilantros 2
Water Infrastructure	EB Asomante
Water Infrastructure	EB Cheo Fas
Water Infrastructure	EB Villa Madrid 2
Water Infrastructure	EB Verónica
Water Infrastructure	EB Quenepo
Water Infrastructure	EB Cilantros 1
Industrial	Eaton

Guayama

Critical Facilities Level 1

Facility Type	Description
Hospital	Hospital Menonita Guayama
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office

Emergency Response Plan

Base Plan

Emergency Shelter	Community Center Res. Luis Pales Matos
Emergency Shelter	Community Center Santa Juanita
Emergency Shelter	Centro Servicios Múltiples Bo. Cimarrona
Emergency Shelter	Francisco García Boyrie – School
Emergency Shelter	Rafael Antonio Delgado Mateo – School
Emergency Shelter	Oscar Hernández Guevara – School
Emergency Shelter	Simón Madera – School
Water Infrastructure	Water reservoir RexManor
Water Infrastructure	Guayama RWWTP
Water Infrastructure	PF & EB Olimpo
Military Facility	Army National Guard

Critical Facilities Level 2

Facility Type	Description
Medical Facility	Fresenius Medical Care Guayama – Dialysis
Medical Facility	The Renal Center of Guayama – Dialysis
Elderly Home	OV Housing Geriatric Living Home
Industrial	Skalar (Pharmaceutical)
Industrial	Haleon (Pharmaceutical)
Industrial	Baxter (Medical Devices)
Water Infrastructure	EB Palmas 1
Water Infrastructure	EBAS Puente de Jobos (Troncal)
Water Infrastructure	EBAS Hostos
Water Infrastructure	EBAS Hacienda Los Recreos
Water Infrastructure	EBAS Olimpo
Water Infrastructure	Well Hacienda Guamaní
Water Infrastructure	EBAS Jardines de Guamaní
Water Infrastructure	EB Corazón 2
Water Infrastructure	EB Los Gorditos
Water Infrastructure	EB Aguas Limpias
Water Infrastructure	EB Rachos Guayama 3

Emergency Response Plan

Base Plan

Water Infrastructure	EB Olimpo
Water Infrastructure	EB Carite
Water Infrastructure	EB Caimital 2 & 3
Water Infrastructure	EB Pueblito del Carmen
Water Infrastructure	EB El Vigía
Water Infrastructure	EB Palmas 2 thru 4
Water Infrastructure	EB Caimital 1
Water Infrastructure	EB Branderí
Water Infrastructure	EB Ranchos Guayama 1 & 2
Water Infrastructure	EB Villa Carite 1
Water Infrastructure	EB Palma Sola 1
Water Infrastructure	Well Villodas 2
Telecommunication	Radio antenna (WIBS 1540 AM & WXRF 1590 AM)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT Metro Pavia Clinic
Medical Facility	Centro de Salud Familiar Dr. Julio Palmieri
Elderly Home	Brisas del Mar Elderly
Water Infrastructure	EB Culebras 2
Water Infrastructure	EB Carite
Water Infrastructure	EB Corazón 2da etapa (La Cuesta)

Maunabo

Critical Facilities Level 1

Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	S.U. Higinio Figueroa Villegas – School
Emergency Shelter	Wilfredo La Fuente - School
Water Infrastructure	Maunabo WWTP

Emergency Response Plan

Base Plan

Water Infrastructure	Water reservoir & PF Liza
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Centro de Salud Familiar
Elderly Home	Egida de la Policía
Water Infrastructure	EBAS Talante
Water Infrastructure	EBAS El Faro
Water Infrastructure	EB Talante
Water Infrastructure	Well & EB Calzada 1 & 2
Water Infrastructure	EB Los Lebrones 1
Water Infrastructure	EBAS Emajagua
Water Infrastructure	Well Bordaleza
Water Infrastructure	Well San Pedro
Water Infrastructure	Well Urbano
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Centro de Servicios Primarios de Salud
Water Infrastructure	EB Palo Seco
Water Infrastructure	EB Calzada
Water Infrastructure	EB Los Lebrones 2
Patillas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Res. Villa del Caribe
Emergency Shelter	Cecilio Lebrón Ramos – School
Emergency Shelter	Josefina Muñoz de Bernier – School
Water Infrastructure	PF Patillas

Emergency Response Plan

Base Plan

Water Infrastructure	Patillas WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Servicios Primarios
Water Infrastructure	EB Los Pollos
Water Infrastructure	Well Jacaboia 3
Water Infrastructure	EBAS Portales de Jacaboia
Water Infrastructure	EBAS Solymar
Water Infrastructure	EBAS El Bajo
Water Infrastructure	EB Apeadero
Water Infrastructure	EBAS La Providencia
Water Infrastructure	EB Marín Alto 2
Water Infrastructure	EB Laboy
Water Infrastructure	EB Lamboglia
Water Infrastructure	EB Marín Alto 4 (La Represa)
Water Infrastructure	Well Jacaboia 2 & 4
Water Infrastructure	EB Recio
Water Infrastructure	EB Marín Alto 1
Water Infrastructure	EB Jagual-Cacao Alto
Water Infrastructure	EB Mamey
Water Infrastructure	TQ & EB Marín Alto 3
Water Infrastructure	EB Cofresí
Water Infrastructure	Well Jacaboia 1
Telecommunication	Radio Antenna (WEXS 610 AM)
Salinas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME

Emergency Response Plan

Base Plan

Emergency Shelter	Félix Garay Ortiz -School
Emergency Shelter	Intermedia El Coquí – School
Emergency Shelter	Stella Márquez – School
Emergency Shelter	Superior Urbana Carlos Colón Burgos - School
Flood Control	El Guapo – Bo. Playa Pump
Flood Control	Pichingo – Bo. Playa Pump
Flood Control	Las Ochenta Pump
Military Facility	Camp Santiago
Military Facility	Army Reserve
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Sur-Med Medical center Corp
Elderly Home	Salinas Elderly
Water Infrastructure	Well Texidor
Water Infrastructure	Well Godreau 2
Water Infrastructure	EBAS Playa Salinas
Water Infrastructure	EBAS La Margarita
Water Infrastructure	EBAS Las Ochenta
Water Infrastructure	EBAS Aguirre-Montesoria 1
Water Infrastructure	EBAS San Felipe
Water Infrastructure	EBAS Troncal Salinas
Water Infrastructure	Well Coco 3
Water Infrastructure	Well Coco 2
Water Infrastructure	Well Urbano 1, 2 & 3
Water Infrastructure	EB Palmas 1
Water Infrastructure	Well La Margarita
Water Infrastructure	Well Coquí 3
Water Infrastructure	Well San Felipe
Water Infrastructure	EB Palmas 2
Water Infrastructure	EB Mobil

Emergency Response Plan

Base Plan

Water Infrastructure	Well Parcelas Vázquez
Water Infrastructure	Well La Plena
Water Infrastructure	Well Las Mojas (Coquí 2)
Water Infrastructure	EB Las Ochenta
Water Infrastructure	EB Vertedero 1 & 2
Water Infrastructure	EB Palmas
Water Infrastructure	EB Booster Cocos
Water Infrastructure	Well Bueno
Water Infrastructure	EB La Plena
Water Infrastructure	Well Coco 4 (Camapamento 4)
Water Infrastructure	EB El Cerrito
Telecommunication	Radio Antenna (WHYO 1210 AM)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT Sur-Med El Coquí
Medical Facility	CDT Sur-Med El Coco
Medical Facility	Centro de Servicios Primarios de Salud
Industrial	Hamilton Sundstand

CAGUAS REGION

Municipalities	Aguas Buenas, Aibonito, Barranquitas, Caguas, Cayey, Cidra, Gurabo, Humacao, Juncos, Las Piedras, Naguabo, Orocovis, San Lorenzo, Yabucoa

Barranquitas District

Municipalities	Aguas Buenas, Aibonito, Barranquitas, Cayey, Cidra, Comerío, Orocovis

Aguas Buenas

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME

Emergency Response Plan

Base Plan

Emergency Shelter	Dr. Pedro Albizu Campos – School
Emergency Shelter	Superior Urbana – School
Water Infrastructure	Water reservoir Río Caguitas
Water Infrastructure	PF Jagueyes
Water Infrastructure	Aguas Buenas WWTP
Water Infrastructure	Water reservoir & PF Minillas
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Salud Familiar
Water Infrastructure	EB Mulas Tiza
Water Infrastructure	EB Jagueyes-Pajillas 1ra thru 3ra etapa
Water Infrastructure	EB Mulas Tiza 1
Water Infrastructure	EBAS Vistas de Jagueyes
Water Infrastructure	EBAS San Antonio
Water Infrastructure	EBAS Monserrate
Water Infrastructure	EBAS Palmas Reales
Water Infrastructure	EB Sonadora Final
Water Infrastructure	EB Jagueyes 2da etapa
Telecommunications	Tower Marquesa, La Mesa
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	NeoMed Center Aguas Buenas
Medical Facility	NeoMed Center Bayamoncito
Water Infrastructure	TQ & EB Jagueyes-Pajillas 4
Water Infrastructure	EB Sumidero
Water Infrastructure	TQ & EB Pajita Falcón
Aibonito	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital Menonita

Emergency Response Plan

Base Plan

Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Federico Degetau 2 – School
Emergency Shelter	Dra. Carmen Delia Colón Martínez – School
Military Facility	Army National Guard
Water Infrastructure	Aibonito WWTP
Water Infrastructure	Water reservoir La Plata
Water Infrastructure	PF Urbana
Water Infrastructure	Water reservoir Usabón
Water Infrastructure	PF La Plata
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Fresenius Kidney Care - Dialysis
Elderly Home	Hogar Dulce Vida (Sustituto Lupiañez Mejía)
Water Infrastructure	TQ & EB La Torre
Water Infrastructure	EB Jagueyes 1ra etapa
Water Infrastructure	EBAS Jatibonito
Water Infrastructure	EB Los Mangos
Water Infrastructure	EB Las Abejas
Water Infrastructure	EBAS Coquí
Water Infrastructure	EB Manresa
Water Infrastructure	EB La Plata 1ra etapa thru 3ra etapa
Industrial	Baxter Health Care (Medical Devices)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	COSSMA
Water Infrastructure	TQ & EB Algarrobo 2
Water Infrastructure	Well Caonillas 1 & 2
Water Infrastructure	Well Ext. San Luis 1

Emergency Response Plan

Base Plan

Water Infrastructure	Well Jatibonito (Bambuín)
Water Infrastructure	Well Matadero
Water Infrastructure	Well San Luis
Water Infrastructure	Well Playita
Water Infrastructure	EB Rabanal
Industrial	To-Ricos (Food)

Barranquitas

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Centro Geriático La Hermandad
Emergency Shelter	Antonio Vázquez Ramos – School
Emergency Shelter	Francisco Paco López – School
Emergency Shelter	Luis Muñoz Marín – School
Water Infrastructure	Water reservoir Barrancas
Water Infrastructure	PF Urbana
Water Infrastructure	Barranquitas WWTP
Water Infrastructure	Water reservoir Botijas
Water Infrastructure	PF Barrancas
Water Infrastructure	TQ Intermedio Las Bocas
Water Infrastructure	Water reservoir & PF Las Bocas

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Salud Integral en la Montaña, inc.
Water Infrastructure	EBAS El Portón
Water Infrastructure	TQ & EB Sinforoso Aponte
Water Infrastructure	EBAS Troncal Barranquitas
Water Infrastructure	EBAS Palo Hincado 1 & 2

Emergency Response Plan

Base Plan

Water Infrastructure	EB Palo Hincado (Caracoles)
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB La Pacheca
Water Infrastructure	Well Palo Hincado 5
Water Infrastructure	Well La Torre
Water Infrastructure	EB Helechal 2da etapa
Water Infrastructure	EB Farallón-Barrancas
Water Infrastructure	EB Parcelas de Palo Hincado
Water Infrastructure	EB Torre 1 (Boquerón)
Water Infrastructure	TQ & EB La Torre 2
Water Infrastructure	Well Palo Hincado 1 thru 4
Water Infrastructure	EB Las Lomas (Honduras-El Portón)
Water Infrastructure	Well Pitusa (El Hotel)
Water Infrastructure	Well Helechal
Water Infrastructure	Well Tres Caminos
Cayey	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital Menonita
Police	State Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Community Center Alturas de Montellano
Emergency Shelter	Community Center Res. Luis Muñoz Morales
Emergency Shelter	Escuela Especializada de Bellas Artes
Emergency Shelter	Elemental Salvador Brau – School
Military Facility	Army National Guard
Water Infrastructure	PF & EB Urbano (Cercadillo 1)
Water Infrastructure	Water reservoir Puente de hierro

Emergency Response Plan

Base Plan

Water Infrastructure	Water reservoir Lago Carite
Water Infrastructure	Cayey WWTP
Water Infrastructure	Water reservoir La Vega-Río La Plata
Water Infrastructure	PF Culebras Alto
Water Infrastructure	Water reservoir 2da & 3ra etapa Culebras
Water Infrastructure	Water reservoir Río Chiquito
Telecommunications	Towers & Doppler Radar – Cerro La Santa

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Centro de Salud Mariano Rivera
Medical Facility	Fresenius Medical Care - Dialysis
Water Infrastructure	Well Bauzá
Water Infrastructure	TQ & EB Guavate 1
Water Infrastructure	EB Las Cruces
Water Infrastructure	EBAS Estancias de Monte Río
Water Infrastructure	EB Domingo López 1ra etapa
Water Infrastructure	TQ & EB Doña Lola
Water Infrastructure	EB Fuente de Agua Viva
Water Infrastructure	EBAS Rincón Master
Water Infrastructure	EBAS Estancias de Beatriz
Water Infrastructure	EBAS Reparto Montellano
Water Infrastructure	EBAS Consolidated
Water Infrastructure	EBAS San Tomás
Water Infrastructure	EBAS Matón 1 & 2
Water Infrastructure	EBAS Mansiones de Monte Verde
Water Infrastructure	EB Guavate 2
Water Infrastructure	EB La Cuatro 1ra etapa
Water Infrastructure	EB Carite

Critical Facilities Level 3

Facility Type	Description

Emergency Response Plan

Base Plan

Medical Facility	CDT Healthcare Ambulatory Services
Water Infrastructure	EB Cercadillo 2da thru 4ta etapa
Water Infrastructure	EB Parcels El Cedro 2
Water Infrastructure	EB Pedro Avila
Water Infrastructure	TQ & EB Cordero 1ra & 2da etapa
Water Infrastructure	EB Las Vegas
Water Infrastructure	EB Carrasquillo
Water Infrastructure	Well Pasto Nuevo
Water Infrastructure	TQ & EB Jagüeyes 2da etapa
Water Infrastructure	EB Cedro 1
Water Infrastructure	EB Mogote

Cidra

Critical Facilities Level 1

Facility Type	Description
Hospital	Panamericano
Police	State & Cidra Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Ernesto Vicente Caratini – School
Emergency Shelter	Jesús T. Piñero – School
Emergency Shelter	S.U. Certenejas 2 – School
Emergency Shelter	Violeta Reyes Pérez
Water Infrastructure	Water reservoir Lago de Cidra
Water Infrastructure	Water reservoir Diversión-Candelas
Water Infrastructure	Water reservoir & PF Crudas Cidra

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Centro de Salud Familiar
Elderly Home	Golden Living Cidra
Water Infrastructure	TQ & EB 1ra thru 3ra etapa Rabanal

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Ciudad Primavera
Water Infrastructure	EBAS Cidra 1 & 2
Water Infrastructure	EBAS Estancias de Cidra
Water Infrastructure	EBAS Santa Teresita
Water Infrastructure	EBAS Treasure Valley
Water Infrastructure	EB El Salto
Water Infrastructure	EB Ceiba 1ra etapa
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	COSSMA, inc.
Water Infrastructure	EB Ceiba 2da etapa
Water Infrastructure	EB Arenas soterrada
Comerío	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Manuel Martorrel
Emergency Shelter	Claudio Ferrer Cotto – School
Emergency Shelter	Inés María Mendoza
Emergency Shelter	Luis Muñoz Marín – School
Water Infrastructure	PF Comerío-Río Hondo
Water Infrastructure	Water reservoir La Plata Comerío
Water Infrastructure	Comerío WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Salud Familiar
Elderly Home	Comerío Housing
Water Infrastructure	EBAS La Prieta1

Emergency Response Plan

Base Plan

Water Infrastructure	TQ & EB Las Cejas 1ra thru 4ta etapa
Water Infrastructure	EB Río Hondo 1 & 2
Water Infrastructure	EB La Juncia 2da etapa
Water Infrastructure	TQ & EB Parcelas de Río Hondo 1ra & 2da etapa
Water Infrastructure	Well Cejas
Water Infrastructure	EBAS Comerío Troncal
Water Infrastructure	EB Los Lazos
Water Infrastructure	EBAS La Prietara thru 3ra etapa
Water Infrastructure	EBAS Sabana del Palmar
Water Infrastructure	EB Las Piñas 1 thru 4
Water Infrastructure	Well EL Verde
Water Infrastructure	TQ & EB Doña Elena 1 thru 6
Water Infrastructure	EB Sabana

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT Salud Integral de la Montaña
Water Infrastructure	Well Doña Elena
Water Infrastructure	EB Las Nereida

Orocovis

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Ángel Rafael Díaz Colón (S.U. Saltos) – School
Emergency Shelter	Nélida Meléndez Meléndez – School
Emergency Shelter	S.U. Botijas I. – School
Emergency Shelter	S.U. Matrullas – School
Emergency Shelter	Visitación Pagón – School
Water Infrastructure	Water reservoir Las Marías

Emergency Response Plan

Base Plan

Water Infrastructure	PF Orocovis Urbano
Water Infrastructure	Orocovis WWTP
Water Infrastructure	Water reservoir & PF Matrullas
Telecommunication	Communication Tower (PRPD, Coast Guard, TV & Radio)
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Salud Integral de la Montaña
Water Infrastructure	EB Villa Cooperativa
Water Infrastructure	EB Saltos 2
Water Infrastructure	EBAS Bajuras El Gato
Water Infrastructure	EBAS Barros 2
Water Infrastructure	EBAS Orocovis
Water Infrastructure	EB Saltos 1
Water Infrastructure	EB Gapito (Botijas 2)
Water Infrastructure	EB La Sapia
Water Infrastructure	EB Sabana 2
Water Infrastructure	EBAS Barros 1
Water Infrastructure	EB Saltos 4
Water Infrastructure	EB Tanques Saltos 2
Water Infrastructure	EB Bermejales 1
Water Infrastructure	EB Sabana 3 & 4
Water Infrastructure	EB San Miguel
Telecommunications	Centro Comunicación, TV, Radio, Celular Cerro Punta
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Sabana 1
Water Infrastructure	EB Bauta Centro
Water Infrastructure	EB Vietnam
Water Infrastructure	EB El Gato
Water Infrastructure	EB Mata Cana

Emergency Response Plan

Base Plan

Caguas District	
Municipalities	Caguas, Gurabo, Juncos, San Lorenzo
Caguas	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Hospital HIMA San Pablo
Hospital	Hospital Menonita
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office
Emergency Shelter	Abelardo Díaz Morales – School
Emergency Shelter	Cipriano Manrique – School
Emergency Shelter	Sandalio Marcano – School
Emergency Shelter	Francisco Valdés Rola – School
Emergency Shelter	Inés María Mendoza – School
Emergency Shelter	Proyecto Integración Comunitaria Cañaboncito
Military Facility	Army National Guard
Water Infrastructure	PRASA Central Laboratory
Water Infrastructure	Water reservoir & PF Caguas Norte
Water Infrastructure	Parcelas Borinquen WWTP
Water Infrastructure	Caguas WWTP (New)
Water Infrastructure	PF Caguas Sur
Water Infrastructure	Water reservoir Río Turabo
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro Ambulatorio Pavía Caguas
Medical Facility	CDT Clínica de Salud y Bienestar
Medical Facility	CDT Corporación SANOS
Medical Facility	Fresenius Medical Care – Dialysis

Emergency Response Plan

Base Plan

Medical Facility	Atlantis The Renal Centre of Caguas – Dialysis
Elderly Home	Caguas Courtyard
Elderly Home	Egida Hogar Cristo Rey
Elderly Home	Hogar Paradisus Corp.
Elderly Home	Hogar San José
Industrial	Abbott (Pharmaceutical)
Industrial	C Axis (Medical Devices)
Industrial	Terumo (Medical Devices)
Water Infrastructure	TQ & EB San Luis
Water Infrastructure	EB Certenejas (Lechugas)
Water Infrastructure	TQ & EB Tomás de Castro 4ta etapa
Water Infrastructure	TQ & EB La Pista
Water Infrastructure	TQ & EB Ciudad Jardín
Water Infrastructure	EB San Antonio
Water Infrastructure	EBAS José Mercado 1
Water Infrastructure	EBAS Villas del Rey 1
Water Infrastructure	EB Chalets de Bairoa
Water Infrastructure	EBAS Quintas de San Luis
Water Infrastructure	EBAS Villa de San Luis
Water Infrastructure	EBAS Villa del Rey 4
Water Infrastructure	EBAS Villa Caliz 2
Water Infrastructure	EBAS Alturas Villa del Rey
Water Infrastructure	EBAS Los Toliches
Water Infrastructure	EBAS Las Carolinas
Water Infrastructure	EBAS José Mercado 2
Water Infrastructure	EBAS Hacienda San José
Water Infrastructure	EBAS Mileno 2
Water Infrastructure	EBAS Villa Caliz 1
Water Infrastructure	EB Turabo Gardens
Water Infrastructure	EBAS Villa Esperanza

Emergency Response Plan

Base Plan

Water Infrastructure	EB Tomás de Castro 2 etapa 1 thru 4
Water Infrastructure	EB Hormigas
Water Infrastructure	EBAS San Pedro Estates
Water Infrastructure	TQ & EB Los Prados
Water Infrastructure	EBAS Altos de la Fuente
Water Infrastructure	EBAS La Serranía
Water Infrastructure	EBAS Caguas Troncal
Water Infrastructure	TQ & EB La Barra 1ra etapa
Water Infrastructure	EB Villas de Castro 1
Water Infrastructure	EBAS Estancias del Lago
Water Infrastructure	EBAS Los Prados
Water Infrastructure	EBAS Valle del Lago
Water Infrastructure	EBAS General Electric
Water Infrastructure	EBAS Villas de Castro
Water Infrastructure	TQ & EB San Salvador 2 thru 4
Water Infrastructure	EBAS Santa Rosa
Water Infrastructure	EB Soterrada Villas de Castro
Water Infrastructure	EBAS Santa Rosa
Water Infrastructure	EB & EBAS Laderas de San Juan
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Healthcare Ambulatory Service
Medical Facility	CDT Corporación SANOS - Los Prados
Water Infrastructure	TQ & EB Altos de la Fuente
Water Infrastructure	Well Baitoa A & B
Water Infrastructure	Well Senzy (El Parquesito)
Water Infrastructure	EB Tomás de Castro 1 (soterrado)
Water Infrastructure	TQ & EB Bosque Verde
Water Infrastructure	EB El Cinco 1ra & 2da etapa
Water Infrastructure	TQ Ponderosa

Emergency Response Plan

Base Plan

Gurabo	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Margarita Rivera de Janer – School
Emergency Shelter	S.U. Vidal Serrano – School
Emergency Shelter	Villa Marina – School
Military Facility	Army National Guard
Water Infrastructure	Water reservoir & PF Gurabo
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT NeoMed Center - Jaguas
Elderly Home	Gurabo Elderly
Elderly Home	Doris Home Corp.
Industrial	Linde Gas (Oxygen for Hospitals)
Water Infrastructure	EB & EBAS Reina de Los Ángeles
Water Infrastructure	EB Juncos CP-4
Water Infrastructure	TQ & EB Caguas-Gurabo
Water Infrastructure	EB Celada 3
Water Infrastructure	EB María Jiménez
Water Infrastructure	EB Jaguar 1 (Hato Nueve)
Water Infrastructure	TQ & EB Jaguar (Banco Popular)EB
Water Infrastructure	EB Jaguar BoosterEBAS Alturas de Hato Nuevo
Water Infrastructure	EBAS Gran Vista 2
Water Infrastructure	EBAS Extensión Alturas de Hato Nuevo
Water Infrastructure	EBAS Lomas del Sol
Water Infrastructure	TQ & EB Celada 2da etapa
Water Infrastructure	EBAS Santa BárbaraEBJaguas Lomas 1 & 2

Emergency Response Plan

Base Plan

Water Infrastructure	TQ & EB Jaguar 2da etapa
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Policlínica Navarro
Medical Facility	NeoMed Center- Clinic
Water Infrastructure	Well Mendoza (Hato Nuevo)
Water Infrastructure	EB Rincón 1ra etapa
Water Infrastructure	EB Masas Aisladas
Water Infrastructure	TQ Rincón
Water Infrastructure	TQ & EB Jaguas Lomas 3ra etapa
Water Infrastructure	EB Las Masas
Water Infrastructure	EB Jaguas Lomas 2
Water Infrastructure	EB Santa Rita
Industrial	Johnson & Johnson (Medical Equipment)
Juncos	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Alfonso Díaz Lebrón – School
Emergency Shelter	Pedro Bosch – School
Emergency Shelter	Roberto Silva Morales – School
Emergency Shelter	S.U. Pedro Rivera Molina
Emergency Shelter	Centro de Actividades Valenciano
Emergency Shelter	Rafael G. Amalbert Coliseum
Water Infrastructure	PF Ceiba Sur
Water Infrastructure	Water reservoir Ceiba Sur
Critical Facilities Level 2	
Facility Type	Description

Emergency Response Plan

Base Plan

Medical Facility	CDT Dr. Cesar Augusto Collazo
Medical Facility	The Atlantis Healthcare Group of Juncos
Elderly Home	Juncos del Río
Industrial	Amgen (Pharmaceutical)
Water Infrastructure	EB Ceiba Norte
Water Infrastructure	EB Ensanche
Water Infrastructure	EBAS Estancias de Juncos
Water Infrastructure	EBAS EL Encanto
Water Infrastructure	EB La Placita
Water Infrastructure	EBAS Ensanche
Water Infrastructure	EBAS Lirios Cala
Water Infrastructure	EB El Mangó
Water Infrastructure	TQ & EB Las Piñas
Water Infrastructure	EB Placita 1
Water Infrastructure	Well Colinas del Este
Water Infrastructure	EBAS Los Almendros
Water Infrastructure	EBAS Estancias de la Ceiba
Water Infrastructure	EBAS Colinas de Juncos
Water Infrastructure	EBAS La Placita
Water Infrastructure	EB Cuatro Calle
Water Infrastructure	EB Lirios Jocelyn
Water Infrastructure	EBSA Cementerio
Water Infrastructure	EB Lirios Cementerio
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	NeoMed Center
Water Infrastructure	EB Campiña
Water Infrastructure	Well Colinas del Este
Water Infrastructure	TQ & EB Lirios Cala
San Lorenzo	

Emergency Response Plan

Base Plan

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Dra. María T. Delgado de Marcano – School
Emergency Shelter	Jorge Rosario Del Valle – School
Emergency Shelter	Luis Muñoz Rivera – School
Water Infrastructure	PF Espino
Water Infrastructure	Water reservoir Cerro Gordo
Water Infrastructure	Water reservoir & PF Jagual
Water Infrastructure	PF Cerro Gordo

Critical Facilities Level 2

Facility Type	Description
Elderly Home	Egida de la Florida
Industrial	Johnson & Johnson (Medical)
Industrial	Ethicon (Medical)
Water Infrastructure	TQ & EB Carrasquillo 2da etapa
Water Infrastructure	EB Florida 1ra etapa
Water Infrastructure	EB Quebrada 1ra & 2da etapa
Water Infrastructure	TQ & EB Quebrada Arenas 1ra & 2da etapa
Water Infrastructure	TQ & EB Los Velázquez 1ra thru 3ra etapa
Water Infrastructure	EBAS Industrial
Water Infrastructure	EBAS Hato
Water Infrastructure	EBAS Jardines de San Lorenzo
Water Infrastructure	EBAS Hacienda Florida
Water Infrastructure	TQ & EB Tamarindos
Water Infrastructure	EBAS Tronca San Lorenzo
Water Infrastructure	EBAS Salvatierra 1 & 2
Water Infrastructure	EBAS Jardines de Cerro Gordo

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Vistas del Río
Water Infrastructure	EBAS Sabana Real
Water Infrastructure	TQ & EB La Capilla
Water Infrastructure	EBAS San Lorenzo
Water Infrastructure	EB Los Carrasquillos 1ra etapa
Water Infrastructure	TQ & EB San Lorenzo Urbano
Water Infrastructure	EBAS Los Caminos
Water Infrastructure	EBAS Barriada Roosevelt

Critical Facilities Level 3

Facility Type	Description
Medical Facility	COSSMA, inc. San Lorenzo
Medical Facility	NeoMed Center Condado
Water Infrastructure	TQ & EB Los Paganés
Water Infrastructure	TQ & EB Jacobo Pérez 2da etapa
Water Infrastructure	TQ & EB Quebrada Arenas 3ra etapa

Humacao District

Municipalities	Humacao, Las Piedras, Naguabo, Yabucoa

Humacao

Critical Facilities Level 1

Facility Type	Description
Hospital	Hospital Menonita
Hospital	Hospital Oriente – Dr. Domínguez
Hospital	Hospital Ryder
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office
Emergency Shelter	Ana Roqué de Duprey – School
Emergency Shelter	Avelino Peña Reyes – School
Emergency Shelter	Juan Ponce de León – School

Emergency Response Plan

Base Plan

Water Infrastructure	PF Humacao
Water Infrastructure	Humacao RWWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Dr. Jorge Franceschi
Medical Facility	CDT Red Ambulatoria Menonita Humacao
Medical Facility	Fresenius Medical Care – Dialysis
Elderly Home	Hogar Manuel Mediavilla Negrón
Water Infrastructure	TQ & EB Mambiche
Water Infrastructure	TQ & EB La Pollera
Water Infrastructure	TQ & EB Mariana 1ra thru 4ta etapa
Water Infrastructure	EB Caserío Roig
Water Infrastructure	TQ & EB Candeleró 2da etapa
Water Infrastructure	EBAS Villas de Humacao
Water Infrastructure	EBAS Patagonia
Water Infrastructure	EBAS Junquito
Water Infrastructure	EB La Rolina
Water Infrastructure	TQ & EB Vista Hermosa
Water Infrastructure	EBAS Fomento Industrial
Water Infrastructure	EBAS Jardín Central
Water Infrastructure	EBAS Villas de Candeleró
Water Infrastructure	EBAS Buxo
Water Infrastructure	EBAS Villas del Río
Water Infrastructure	EBAS Ciudad Cristiana
Water Infrastructure	EB Palmas del Mar
Water Infrastructure	EB Coto-Mabu
Water Infrastructure	EBAS Villa Palmira
Water Infrastructure	EBAS Buena Vista
Water Infrastructure	EB Terminal Sur
Water Infrastructure	EB Candeleró 1ra etapa

Emergency Response Plan

Base Plan

Water Infrastructure	EB Antón Ruíz
Water Infrastructure	EB Sistema Hidroneumático Buenas Vista
Industrial	Linde Gas (Oxygen for Hospitals)
Industrial	Bristol-Meyers-Squibb (Phamarceutical)
Industrial	Medtronic (Medical Devices)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	COSSMA Inc.
Water Infrastructure	EB Buena Vista
Water Infrastructure	EB Dr. Palou
Water Infrastructure	EB Cataño
Water Infrastructure	EB El Faro
Water Infrastructure	EB Mabu Chiquito
Water Infrastructure	EB Los Sauces
Industrial	Microsoft
Las Piedras	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Ramón Power y Giralt – School
Emergency Shelter	José de Diego – School
Emergency Shelter	Leonicio Meléndez – School
Emergency Shelter	Luis Muñoz Rivera - School
Water Infrastructure	Water reservoir Cuesta de los Jobos
Water Infrastructure	PF Quebrada Grande
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Las Piedras

Emergency Response Plan

Base Plan

Medical Facility	Fresenius Medical Care – Dialysis
Elderly Home	Las Piedras Elderly
Industrial	McNiel Healthcare (Pharmaceutical)
Industrial	Merck (Pharmaceutical)
Water Infrastructure	EB April Gardens (Montones 1)
Water Infrastructure	TQ & EB Tejas-Los Guares
Water Infrastructure	EB Collores
Water Infrastructure	EBAS Mansiones de los Artesanos
Water Infrastructure	TQ & EB Tejas
Water Infrastructure	EBAS Zona Industrial
Water Infrastructure	TQ & EB Coliseo
Water Infrastructure	EB Valle Piedra
Water Infrastructure	EB Quebrada Arenas
Water Infrastructure	EBAS Arenales
Water Infrastructure	EBAS La Inmaculada
Water Infrastructure	EBAS Montones (La Campiña)
Water Infrastructure	EBAS Palma Royale
Water Infrastructure	EBAS Portal de Las Piedras
Water Infrastructure	EBAS Villas de San Cristóbal
Water Infrastructure	EBAS Park Hurst
Water Infrastructure	EBAS Olympic
Water Infrastructure	EBAS La Sabana
Water Infrastructure	EBAS Paseo de los Artesanos
Water Infrastructure	EBAS April Gardens
Water Infrastructure	EBAS Melillas
Water Infrastructure	EBAS Pueblito del Río
Water Infrastructure	EBAS Club Cívico
Water Infrastructure	Well Boquerón
Water Infrastructure	TQ & EB Los Perros
Water Infrastructure	TQ & EB Centro Espiritista

Emergency Response Plan

Base Plan

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT COSSMA, Inc. – Las Piedras
Industrial	Johnson & Johnson (Medical devices)
Industrial	Aspen Surgical (Medical devices)
Water Infrastructure	EB Piedra Azul
Water Infrastructure	Well Pueblito del Río

Naguabo

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	José Juan Mauney – School
Emergency Shelter	Lutgarda Rivera Reyes – School
Emergency Shelter	S.U. Silverio García - School
Water Infrastructure	Water reservoir Galería Río Blanco
Water Infrastructure	Water reservoir Río Blanco Vieja
Water Infrastructure	PF El Duque
Water Infrastructure	PF Río Blanco
Water Infrastructure	PF Cubuy (Mizales)
Telecommunication	El Yunque Communication Towers
Telecommunication	Navy Communication Services

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Naguabo
Water Infrastructure	EBAS Casa Bella
Water Infrastructure	EBAS Jardín del Este
Water Infrastructure	EBAS Brisas del Valle
Water Infrastructure	EBAS Botijas

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Estancias de la Vía
Water Infrastructure	EB Higuerillo 1ra etapa thru 5ta etapa
Water Infrastructure	EBAS Río Blanco Heights
Water Infrastructure	EB Los Millones
Water Infrastructure	EB El Común
Water Infrastructure	EB Pena Pobre
Water Infrastructure	TQ & EB Santiago y Lima
Water Infrastructure	EB Brazo Seco
Water Infrastructure	EB Mariano-Naguabo
Water Infrastructure	EBAS Naguabo-Humacao 2
Water Infrastructure	EBAS Zona Industrial
Water Infrastructure	EB Cecilia 1ra etapa
Water Infrastructure	EBAS Húcares 2 (Fomento)
Water Infrastructure	EBAS Cala de Húcares
Water Infrastructure	EBAS Húcares 2 (Malecón)

Critical Facilities Level 3

Facility Type	Description
Medical Facility	COSSMA, inc. San Lorenzo
Medical Facility	NeoMed Center Condado
Water Infrastructure	TQ & EB Salvador Nieves
Water Infrastructure	EB Mariana-Naguabo

Yabucoa

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Asunción Lugo – School
Emergency Shelter	Ramón Quiñones Medina – School
Emergency Shelter	S.U. Andrés Sandín – School

Emergency Response Plan

Base Plan

Water Infrastructure	PF La Pica
Water Infrastructure	Water reservoir & PF Guayabota
Water Infrastructure	Water reservoir Central Roig-Río Guayanés
Water Infrastructure	Yabucoa WWTP
Water Infrastructure	PF Río Guayanés
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Salud Familiar Menonita
Water Infrastructure	Well Tejas Trinidad
Water Infrastructure	EBAS Dr. Berríos
Water Infrastructure	Well La Laura
Water Infrastructure	EB Jácana 1ra etapa
Water Infrastructure	EBAS Tejas Trinidad
Water Infrastructure	EBAS Candelero
Water Infrastructure	EB Rosa Sánchez
Water Infrastructure	EB Pica Panduras 1
Water Infrastructure	TQ & EB Jácana 2da etapa
Water Infrastructure	TQ & EB Camino Nuevo 4
Water Infrastructure	Well Voluntarios
Water Infrastructure	Well Limones
Water Infrastructure	EB Camino Nuevo 1 thru 3
Water Infrastructure	TQ & EB Jácana 3ra etapa
Water Infrastructure	EBAS Winston
Water Infrastructure	EBAS Comunas
Water Infrastructure	EBAS Jaime C. RodríguezEBASBuena
Industrial	Stryker (Medical)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	COSSMA, Inc.
Water Infrastructure	EB Parrilla Gandular

Emergency Response Plan

Base Plan

SAN JUAN REGION

Municipalities	Canóvanas, Ceiba, Culebra, Fajardo, Loíza, Luquillo, Río Grande, San Juan, Trujillo Alto, Vieques

Fajardo District

Municipalities	Ceiba, Culebra, Fajardo, Luquillo, Vieques

Ceiba

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Management	PREMB Zone Office
Emergency Shelter	Luis Muñoz Marín – School
Emergency Shelter	Santiago Iglesias Pantin – School
Airport	José Aponte
Sea Port	Vieques- Culebra Ferry
Military Facility	Army National Guard & Army Reserve

Critical Facilities Level 2

Facility Type	Description
Elderly Home	Vieques Elderly
Water Infrastructure	EBAS Brisas de Ceiba
Water Infrastructure	EBAS Aguas Claras
Water Infrastructure	EBAS Troncal Ceiba
Water Infrastructure	TQ & EB Demajagua 1ra thru 4ta etapa
Water Infrastructure	EBAS Las Gaviotas
Water Infrastructure	EB Quebrada Seca
Water Infrastructure	EB EL Corcho
Water Infrastructure	EBAS Las Vegas
Water Infrastructure	EBAS Santa María
Water Infrastructure	EBAS Villas del Pilar
Water Infrastructure	EB Rincón

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Costa Esmeralda
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Clínica Familiar (CSILO)
Culebra	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Centro de Salud Familiar
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Ecológica de Culebra – School
Airport	Culebra
Sea Port	Culebra
Water Infrastructure	Culebra WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Healthpro Med
Water Infrastructure	EBAAS Estación Auxiliar de Relevo
Water Infrastructure	EBAS Aeropuerto
Telecommunications	Centro Comunicación, TV, Radio, Celular
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Clark
Water Infrastructure	EB Nueva
Water Infrastructure	TQ Tanque Viejo (Clorinación)
Fajardo	
Critical Facilities Level 1	
Facility Type	Description
Hospitales	Caribbean Medical Center

Emergency Response Plan

Base Plan

Hospitales	HIMA San Pablo
Police	State & Municipality Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Berta Zalduondo – School
Emergency Shelter	Dr. Santiago Veve Calzada – School
Emergency Shelter	María I. Dones
Water Infrastructure	Water reservoir & PF Nueva
Water Infrastructure	Fajardo RWWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Atlantis Health Care Group – Dialysis
Medical Facility	Fresenius Medical Care – Dialysis
Water Infrastructure	EB Monte Brisas
Water Infrastructure	EB Los Pomaes
Water Infrastructure	EBAS Fajardo (Main)
Water Infrastructure	EBAS Jerusalén
Water Infrastructure	TQ Saldana 1
Water Infrastructure	EBAS Montesol
Water Infrastructure	EB Montesol
Water Infrastructure	EBAS Plaza Fajardo
Water Infrastructure	EBAS Fajardo Gardens
Water Infrastructure	EB Altamira
Water Infrastructure	EBAS Puerto Real
Water Infrastructure	EBAS Santa Isidra
Water Infrastructure	EB El Espejo
Water Infrastructure	EB Florencio
Water Infrastructure	EBAS Barriada Obrera
Water Infrastructure	EBAS Luis Cintrón
Water Infrastructure	EBAS Vistas del Convento

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Allen Group
Water Infrastructure	EBAS Villa Marina
Water Infrastructure	TQ & EB José O. Colón
Water Infrastructure	EBAS Las Croabas
Water Infrastructure	EB Florencio
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Altamira
Water Infrastructure	EB El Espejo
Water Infrastructure	EB Gotay Flores
Water Infrastructure	TQ & EB La Roca
Water Infrastructure	EB Monte Mar
Water Infrastructure	EB Vista Hermosa
Water Infrastructure	EB Volantin
Water Infrastructure	TQ & EB Demajaguas
Luquillo	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Camilo Vallés Matienzo – School
Emergency Shelter	Superior Isidro Sánchez – School
Water Infrastructure	PF Sabana
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Luquillo
Water Infrastructure	EBAS Vistas de Luquillo
Water Infrastructure	EBAS Paisaje de Luquillo
Water Infrastructure	EB Costa Sur

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Solimar
Water Infrastructure	EBAS Los Kiskos de Luquillo
Water Infrastructure	EBAS Brisas del Mar
Water Infrastructure	EBAS Juan Martín
Correctional Facility	El Zarzal
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Clínica Familiar (CSILO)
Water Infrastructure	EB Juan Martín
Water Infrastructure	EB Cuesta del Tigre
Water Infrastructure	EB Hacienda Margarita 1ra & 2da etapa
Water Infrastructure	Well Los Paisajes del Lago
Water Infrastructure	EB Hato Viejo 1ra etapa
Water Infrastructure	EB Buena Vista Carrión 3ra etapa
Water Infrastructure	EB Las 48 (soterrada)
Water Infrastructure	EB Gino Pitaya
Water Infrastructure	EB Casa Blanca
Water Infrastructure	EB Buena Vista 1ra & 2da etapa
Water Infrastructure	TQ & EB Gabina Pitaya 1
Water Infrastructure	EB Hato Viejo 2da etapa
Water Infrastructure	TQ & EB Fortuna
Water Infrastructure	EB Mata de Plátano
Vieques	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Centro de Salud Susana Centeno
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	20 de Septiembre de 1988 – School

Emergency Response Plan

Base Plan

Emergency Shelter	María M. Simmons de Rivera
Airport	Vieques
Sea Port	Vieques
Water Infrastructure	Vieques WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Healthpro Med Centro de Salud Comunitario
Water Infrastructure	EBAS Comunidad Esperanza 2 (La Mina)
Water Infrastructure	EBAS Comunidad Esperanza
Water Infrastructure	EBAS Tortuguero
Water Infrastructure	EBAS Florida
Water Infrastructure	EBAS Fomento
Water Infrastructure	EBAS Jardines de Isabel II
Water Infrastructure	EBAS Riechoff
Water Infrastructure	EBAS Jardines de Vieques
Water Infrastructure	EBAS Martínó
Water Infrastructure	EBAS Lucila Franco
Telecommunications	Tower Bo. Esperanza
Critical Facilities Level 3	
Facility Type	Description
Water Infrastructure	EB Villa Borinquen1
Water Infrastructure	TQ & EB Bastimento
Water Infrastructure	EB La Par
Water Infrastructure	TQ El Destino
Water Infrastructure	EB Pilón
Water Infrastructure	TQ & EB Arcadia
Water Infrastructure	Valve Monte Carmelo
Water Infrastructure	Well A1
Water Infrastructure	EB Florida
Canóvanas District	

Emergency Response Plan

Base Plan

Municipalities	Canóvanas, Carolina, Loíza, Río Grande
Canóvanas	
Critical Facilities Level 1	
Facility Type	Description
Police	State & Municipality Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Francisco Paco Dávila (La 400) – School
Emergency Shelter	Georgina Baquero – School
Emergency Shelter	Juana Rodríguez – School
Emergency Shelter	Luis Hernaiz Veronne – School
Emergency Shelter	Vocacional William Rivera Betancourt – School
Water Infrastructure	Water reservoir PF & EB Cubuy
Water Infrastructure	Water reservoir & PF Canóvanas vieja
Water Infrastructure	PF Canóvanas nueva
Water Infrastructure	Water reservoir Loíza Valley
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Dr. Carlos Mellado
Water Infrastructure	EB Haciendas (campo Rico)
Water Infrastructure	EBAS Usubal
Water Infrastructure	EBAS Las Haciendas
Water Infrastructure	EBAS River Valley
Water Infrastructure	EBAS San Isidro
Water Infrastructure	EBAS River Garden
Water Infrastructure	EBAS Torrecilla
Water Infrastructure	EBAS Brisas de Loíza
Industrial	IPR Pharmaceuticals
Critical Facilities Level 3	
Facility Type	Description

Emergency Response Plan

Base Plan

Water Infrastructure	TQ Lomas
Water Infrastructure	EB Arca de Noé
Water Infrastructure	EB La Condesa
Water Infrastructure	EB Parcelas de Campo Rico
Water Infrastructure	EB Peniel
Water Infrastructure	TQ & EB Carruzo 1 & 2
Water Infrastructure	TQ & EB Martín Rodríguez 1
Water Infrastructure	EB Campo Rico-Comandante

Carolina

Critical Facilities Level 1

Facility Type	Description
Hospital	Doctors Center Hospital San Fernando
Hospital	Hospital de la Universidad de PR Dr. Federico Trilla
Police	State Municipal Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Gilberto Concepción de Gracia – School
Emergency Shelter	Angel P. Millán Rohena – School
Emergency Shelter	Jesús T. Piñero – School
Emergency Shelter	Juana A. Méndez – School
Emergency Shelter	María Teresa Serrano – School
Airport	Luis Muñoz Marín
Military Facility	Muñiz AFB
Telecommunication	FAA Communication
Telecommunication	HUB Advanced Networks

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Sala de Emergencias – Urgencias Bo. Barrazas
Medical Facility	Fresenius Medical Care – Dialysis
Water Infrastructure	EBAS Isla Verde Holiday Inn

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Isla Verde Villamar
Water Infrastructure	EBAS Los Mirtos
Water Infrastructure	EBAS Los Ángeles
Water Infrastructure	EBAS Jardines de Carolina
Water Infrastructure	EBAS Carolina pueblo
Water Infrastructure	EBAS Martín González
Water Infrastructure	EBAS Victoria Industrial
Water Infrastructure	EBAS Carolina Industrial Park
Water Infrastructure	EBAS Buenaventura
Water Infrastructure	EBAS Los Colobos
Water Infrastructure	EB Santa Cruz 1
Water Infrastructure	EBAS Hoyo Mulas
Water Infrastructure	EBAS Villa Carolina
Water Infrastructure	EB Metrópolis
Water Infrastructure	EBAS Eyectores Isla Verde
Water Infrastructure	EBAS Parque Ecuestre
Water Infrastructure	EB Barrazas 1
Water Infrastructure	EB Centro Judicial
Water Infrastructure	EBAS Lomas de Carolina
Water Infrastructure	EBAS Hacienda Real
Water Infrastructure	EBAS Vistamar (El Moroco)
Water Infrastructure	EBAS Parque Escorial
Water Infrastructure	EB Las 400
Telecommunication	TV Station

Critical Facilities Level 3

Facility Type	Description
Medical Facility	CDT Metro Pavía Clinic
Medical Facility	Policlínica Dr. Salvador Ribot Ruiz
Medical Facility	Healthpro Med
Industrial	Lilly del Caribe (Pharmaceutical)

Emergency Response Plan

Base Plan

Water Infrastructure	EB Canta Sapo
Water Infrastructure	EB El Gandul
Water Infrastructure	EB Los Márquez
Water Infrastructure	TQ & EB Cedro 1
Water Infrastructure	EB La Grúa
Water Infrastructure	EB Carruzo 5
Water Infrastructure	TQ & EB Barrazas 2 & 3
Water Infrastructure	EB El Trompito
Water Infrastructure	EB Santa Cruz 3
Water Infrastructure	EB Carruzo 4
Water Infrastructure	TQ & EB Arrayanes 1 & 2

Loíza

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Carlos Escobar - School
Emergency Shelter	Celso González Vaillant
Emergency Shelter	S.U. Nueva Bo. Medianía – School
Emergency Shelter	Guillermina Rosado de Ayala – School
Water Infrastructure	Carolina RWWTP

Critical Facilities Level 2

Facility Type	Description
Medical Facility	Concilio de Salud Integral de Loíza, Inc.
Elderly Home	Cecilia Orta
Elderly Home	Egida del Mar
Elderly Home	El Remanso
Water Infrastructure	EBAS Villas del Mar
Water Infrastructure	EBAS EL Cabo

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Loíza C (Apartments (Gardens))
Water Infrastructure	EBAS Loíza D
Water Infrastructure	EBAS Loíza E (Parcelas Vieques)
Water Infrastructure	EBAS Loíza Pueblo
Water Infrastructure	EBAS La Gallera
Water Infrastructure	EBAS Vista del Océano
Water Infrastructure	EBAS Miñi Miñi
Río Grande	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Las Dolores
Emergency Shelter	Community Center Alturas de Río Grande
Emergency Shelter	Community Center Río Grande Estates
Emergency Shelter	Pedro Falú Orellano – School
Emergency Shelter	Rafael Rexach Dueño – School
Emergency Shelter	Elemental Edmundo del Valle – School
Water Infrastructure	Water reservoir & PF Guzmán Arriba
Water Infrastructure	PF El Yunque
Water Infrastructure	Río Grande WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Diagnóstico y Tratamiento de Río Grande
Medical Facility	Fresenius Medical Care (Dialysis)
Elderly Home	Río Dorado Elderly
Water Infrastructure	EBAS Casa Verde
Water Infrastructure	EBAS Río Grande Estates-Los Arboles
Water Infrastructure	EB Zarzal 3T 1ra thru 3ra etapa

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Río Grande Plaza
Water Infrastructure	PF Morovis
Water Infrastructure	EB Dolores
Water Infrastructure	EBAS Ponderosa
Water Infrastructure	EB Malpica 2
Water Infrastructure	EBAS Río Grande – Loíza
Water Infrastructure	EB Malpica 1
Water Infrastructure	EBAS Hong Kong
Water Infrastructure	EBAS Coco Beach
Water Infrastructure	TQ & EB Puerto Kay
Water Infrastructure	EB Estación del Verde
Water Infrastructure	EBAS Villas de Río Grande
Water Infrastructure	EBAS Río Grande Estates
Water Infrastructure	EB Zarzal 3T 4ta etapa
Water Infrastructure	EBAS Palmer
Water Infrastructure	EB Río Mar
Water Infrastructure	EBAS Berwin Beach Resort

Critical Facilities Level 3

Facility Type	Description
Medical Facility	Concilio de Salud Integral de Loíza (CISLO)
Water Infrastructure	EB Dolores
Water Infrastructure	EB Carola
Water Infrastructure	TQ & EB Bella Vista
Water Infrastructure	EB Guzmán Carretera
Water Infrastructure	EB Costa del Sol
Water Infrastructure	EB Jiménez 2
Water Infrastructure	EB Las Coles
Water Infrastructure	EB Colinas del Yunque
Water Infrastructure	EB Guzmán Abajo

San Juan District

Emergency Response Plan

Base Plan

Municipalities	San Juan, Trujillo Alto
San Juan	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Ashford Presbyterian Community Hospital
Hospital	Centro Cardiovascular de PR Dr. Ramón M. Suárez
Hospital	Doctors Center Hospital
Hospital	Health South Rehabilitation Hospital
Hospital	HIMA San Pablo Cupey
Hospital	Auxilio Mutuo
Hospital	Hospital Psiquiátrico Dr. Ramón Fernández Marina
Hospital	Hospital de Maestro
Hospital	Hospital Industrial
Hospital	Hospital Metropolitano de San Juan
Hospital	Hospital Municipal Dr. Rafael López Nussa
Hospital	Hospital Oncológico Dr. Isaac González Martínez
Hospital	Hospital Pavía de Hato Rey
Hospital	Hospital Pavía de Santurce
Hospital	Hospital Pediátrico Universitario Dr. Antonio Ortiz
Hospital	Hospital Psiquiatría Forense Río Piedras
Hospital	Hospital San Francisco
Hospital	Hospital Universitario Adultos
Hospital	San Jorge Children Hospital
Hospital	Hospital San Juan Capestrano
Hospital	Veterans Administration Medical Center
Police	State & Municipal Stations
Fire	State Stations
Emergency Management	OMME & EMS
Emergency Management	PREMB Zone Office
Emergency Management	PREMB State Office (EOC)

Emergency Response Plan

Base Plan

Emergency Shelter	Casa Dominicana
Emergency Shelter	CDT Hoare, Gualberto Rabel Hoare
Emergency Shelter	Community Center Residencial Juan C. Cordero
Emergency Shelter	Community Center Venus Gardens
Emergency Shelter	Community Center Villa España
Emergency Shelter	Service Center Buen Consejo
Emergency Shelter	Multiple Use Center Barrio Obrero
Emergency Shelter	Department of Recreation and Sports
Emergency Shelter	Amalia Marín -School
Emergency Shelter	Juan Ponce de León – School
Emergency Shelter	Venus Gardens _ School
Emergency Shelter	Abraham Lincoln – School
Emergency Shelter	Alejandro Tapia y Rivera – School
Emergency Shelter	Dr. Francisco Hernández y Gaetán – School
Emergency Shelter	Ernesto Ramos Antonini – School
Emergency Shelter	Felipe Gutiérrez – School
Emergency Shelter	Gaspar Vilá Mayáns – School
Emergency Shelter	Juan Antonio Corretjer – School
Emergency Shelter	Juan José Osuna – School
Emergency Shelter	Luis Llorens Torres – School
Emergency Shelter	Manuel Boada – School
Emergency Shelter	Nemesio R. Canales II – School
Emergency Shelter	República de Colombia – School
Emergency Shelter	República de Perú – School
Emergency Shelter	S.U. Dr. Arturo Morales Carrión – School
Emergency Shelter	San Agustín – School
Emergency Shelter	Santiago Iglesias Pantín – School
Emergency Shelter	William D. Boyce – School
Emergency Shelter	Inés María Mendoza
Flood control	Baldorioty de Castro Pump

Emergency Response Plan

Base Plan

Flood control	De Diego Pump
Flood control	Parada 18 Pump
Homeland Security Facility	USCG Sector San Juan
Sea port	Pier 10 thru 16
Sea port	Crowley
Sea port	Army Terminal
Sea port	Pier "A" thru "O"
Water Infrastructure	Puerto Nuevo WWTP
Telecommunication	Telecommunication tower (Llorens Torres)
Telecommunication	Telxius Cable
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Dr. Arnaldo J. García (Luis Llorens Torres)
Medical Facility	CDT Programa SIDA San Juan
Medical Facility	CDT Centro Latinoamericano
Medical Facility	CDT Dr. A Oliveras Guerra (Sabana Llana)
Medical Facility	CDT Dr. Enrique Koppisch (San José)
Medical Facility	CDT Dr. Gualberto Rabell (Sector Hoare)
Medical Facility	CDT Dr. Javier J. Antón (Río Piedras)
Medical Facility	CDT Dr. José A. López Antogorgi (Puerto Nuevo)
Medical Facility	CDT Dr. Manuel Quevedo Báez (Puerta de Tierra)
Medical Facility	Metro Pavía Clinic San Juan
Medical Facility	HealthPro Med Santurce
Medical Facility	Fresenius Medical Care Río Piedras – Dialysis
Medical Facility	Fresenius Medical Care San Juan – Dialysis
Medical Facility	Fresenius Medical Care Los Paseos – Dialysis
Medical Facility	Centro Renal Universitario San Juan – Dialysis
Elderly Home	Egida La Merced
Elderly Home	Egida del Perpetuo Socorro
Elderly Home	The Golden Residences

Emergency Response Plan

Base Plan

Elderly Home	La Inmaculada Elderly Center
Elderly Home	Sunrise Elderly
Elderly Home	Urbana I & II
Elderly Home	Balseiro Affordable Housing
Elderly Home	Blessing Senior Home
Elderly Home	Ciudad Lumen
Elderly Home	Serenity Home
Elderly Home	Casa Metropolitana
Industrial	Medtronic (Medical)
Water Infrastructure	EBAS Escambrón
Water Infrastructure	EBAS El Morro
Water Infrastructure	EBAS Perla
Water Infrastructure	EBAS La Marina
Water Infrastructure	EBAS Labra
Water Infrastructure	EBAS Joffre
Water Infrastructure	EB Booster San Juan
Water Infrastructure	EBAS Buen Consejo
Water Infrastructure	TQ & EB Venezuela/Guaracanal
Water Infrastructure	EBAS Las Margaritas Apartment
Water Infrastructure	EBAS Mirador Las Casas
Water Infrastructure	EBAS Huyke
Water Infrastructure	EBAS Vista Alegre
Water Infrastructure	EBAS El Vigía
Water Infrastructure	EBAS El Capa
Water Infrastructure	EBAS Las Cumbres
Water Infrastructure	EBAS Hillside
Water Infrastructure	EBAS Cupey Gardens
Water Infrastructure	EBAS La Campiña
Water Infrastructure	EB Hasta Mañana
Water Infrastructure	EBAS UM 49

Emergency Response Plan

Base Plan

Water Infrastructure	TQ & EB Caimito 1
Water Infrastructure	EBAS Montehiedra
Water Infrastructure	Radio Repeater Puerto Nuevo Yard
Water Infrastructure	EBAS Los Corozos
Water Infrastructure	EBAS Martín Peña (Tokio)
Water Infrastructure	EBAS Alturas del Bosque
Water Infrastructure	TQ & EB Montehiedra
Water Infrastructure	Well Las Americas
Water Infrastructure	EBAS Nemesio Canales
Water Infrastructure	EBAS Andalucía (Puerto Nuevo)
Water Infrastructure	EBAS San Fernando
Water Infrastructure	EBAS Constitución
Water Infrastructure	EBAS Cantera Air Vacuum
Water Infrastructure	EBAS Extensión Villa Andalucía
Water Infrastructure	EBAS Montecarlo
Water Infrastructure	EBAS Colinas de Montecarlo
Water Infrastructure	EBAS Santa María
Water Infrastructure	EBAS Hill Brothers
Water Infrastructure	EBAS Villa Capri
Water Infrastructure	EBAS San Martín
Water Infrastructure	EBAS Country Club
Water Infrastructure	EB Villa Andalucía
Water Infrastructure	EBAS Villa Andalucía
Water Infrastructure	EBAS Montereal
Water Infrastructure	EBAS Parque de Montebello
Water Infrastructure	EBAS Sabana Liana
Water Infrastructure	EB San Martín
Water Infrastructure	EB Parque Escorial
Water Infrastructure	EBAS Villas El Paraíso
Water Infrastructure	EBAS Cantera Air Vacuum

Emergency Response Plan

Base Plan

Telecommunication	Radio Antenna (Noti Uno)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Asociación de Maestros
Medical Facility	CDT Centro de Planificación Familiar
Medical Facility	CDT CMT Group (Caribbean Medical Testing)
Medical Facility	Metro Pavía Clinic Hato Rey
Medical Facility	San Juan Health Centre
Medical Facility	HealthPro Med Caparra
Medical Facility	San Juan Healthcare for the Homeless Program
Water Infrastructure	TQ & EB Parcelas Carraizo-Cupey
Water Infrastructure	EB Morcelo
Trujillo Alto	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Andrés Valcárcel (Merdardo Carazo) – School
Emergency Shelter	José F. Díaz – School
Water Infrastructure	Carraizo Dam
Water Infrastructure	PF Sergio Cuevas
Water Infrastructure	EB Cupey
Critical Facilities Level 2	
Facility Type	Description
Elderly Home	St. Marys Home for the Elderly
Water Infrastructure	EBAS Trujillo Alto (Puente)
Water Infrastructure	EB La Gloria
Water Infrastructure	EBAS Caney
Water Infrastructure	EBAS Covadonga

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS La Lomita (El Sartén)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	NeoMed Center
Water Infrastructure	EB Loma del Viento
Water Infrastructure	TQ & EB Talanco 1 thru 3
Water Infrastructure	EB Coco Panel
Water Infrastructure	EB Masas 1 thru 3
Water Infrastructure	EB Dos Bocas Nueva
BAYAMÓN REGION	
Municipalities	Bayamón, Cataño, Corozal, Dorado, Guaynabo, Naranjito, Toa Alta, Toa Baja
Bayamón District	
Municipalities	Bayamón, Guaynabo
Bayamón	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Doctors Center Hospital
Hospital	Hospital HIMA San Pablo
Hospital	Hospital Hermanos Meléndez
Hospital	Hospital Psiquiátrico de Niños y Adolescentes
Hospital	Hospital Universitario Dr. Ramón Ruiz Arnau
Hospital	Puerto Rico Childrens Hospital
Hospital	Centro Médico Correccional
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & Municipal
Emergency Shelter	Francisco Manrique Cabrera – School
Emergency Shelter	Herminia Rivera Hernández – School
Emergency Shelter	Pedro P. Casablanca – School

Emergency Response Plan

Base Plan

Emergency Shelter	Rubén Rodríguez Coliseum
Water Infrastructure	Water reservoir & PF Barrio Nuevo
Water Infrastructure	Relevo Barrio Nuevo
Telecommunication	HUBB T-mobile
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	Varmed Health Center
Medical Facility	Fresenius Medical Care Santa Juanita
Medical Facility	Fresenius Medical Center Bayamón
Elderly Home	Ciudad Ensueño
Elderly Home	Laderas del Río
Elderly Home	Egida Los Cantares
Elderly Home	Egida Torre Jesús Sánchez Erazo
Elderly Home	Golden Age Living
Water Infrastructure	EBAS Altomonte
Water Infrastructure	EBAS Valencia
Water Infrastructure	EBAS San Rafael
Water Infrastructure	EBAS Campo Verde
Water Infrastructure	EBAS Villa de Buena Vista
Water Infrastructure	EB El Nueve
Water Infrastructure	EB Padre Rufo
Water Infrastructure	EBAS Sierra Taína
Water Infrastructure	EBAS Las Américas
Water Infrastructure	EBAS Enramada
Water Infrastructure	EBAS Quintas del Río
Water Infrastructure	EB Dajaos 2
Water Infrastructure	EBAS Cerro Gordo 1
Water Infrastructure	EBAS Valle Bello
Water Infrastructure	EBAS La Floresta
Water Infrastructure	EBAS San Souci

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS El Zorzal-Bethel
Water Infrastructure	EAS Vistas del Bosque
Water Infrastructure	EBAS Golden Age Living
Water Infrastructure	EBAS Valle Santa Olaya
Water Infrastructure	Well Estancias de Cerro Gordo
Water Infrastructure	EBAS Santa Catalina
Telecommunications	Hubb T-Mobile
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Grupo Médico San Pablo, Inc.
Medical Facility	CDT Metro Pavía Clinic Bella Vista
Medical Facility	CDT New Vision Medical Diagnostics, Inc.
Medical Facility	CDT Centro de Servicios Integrados
Medical Facility	CDT Metro Pavía Clinic Bayamón
Medical Facility	Community Health Foundation of PR
Medical Facility	Salud Integral de la Montaña
Water Infrastructure	Válvula La Cambija-Superacueducto
Water Infrastructure	EB Neumático Montañez
Water Infrastructure	EB La Peña 1 & 2
Water Infrastructure	EB Olaya
Water Infrastructure	EB Las Toronjas
Water Infrastructure	EB Montellanos
Water Infrastructure	EB Cerro Gordo 1 Nueva & 2
Water Infrastructure	EB Fruto Álvarez
Water Infrastructure	EB Los Barros
Water Infrastructure	EB Guaraguo
Water Infrastructure	EB Bo. Nuevo 3
Water Infrastructure	EB Dajaos 1 & 2
Water Infrastructure	EB Buenas Vista Grande
Water Infrastructure	EB La Morenita

Emergency Response Plan

Base Plan

Water Infrastructure	EB La Peña 3
Water Infrastructure	EB Collores 3
Water Infrastructure	EB Rexville Caña
Water Infrastructure	EB Buena Vista Pequeña
Guaynabo	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Professional Hospital
Police	State & Municipal Station
Fire	State Station
Emergency Management	OMME & EMS
Emergency Shelter	Betsy Rosado de Vega – School
Emergency Shelter	Luis Muñoz Rivera 2 – School
Emergency Shelter	Juan Ponce de León – School
Emergency Shelter	Ramón Marín Solá – School
Emergency Shelter	Santa Rosa 3 – School
Flood Control	Sabana Pump
Flood Control	San Fernando Pump
Water Infrastructure	PF Los Filtros
Water Infrastructure	Water reservoir Santa Rosa
Military	FT Buchanan
Telecommunication	TV & Radio Station
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro Médico Diagnóstico Muñoz Rivera
Medical Facility	CDT Guaynabo Medical Mall
Medical Facility	The Renal Center of Guaynabo 1
Medical Facility	The Renal Center of Guaynabo 2
Elderly Home	Egida del Policía
Water Infrastructure	EBAS Santa Clara

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS El Álamo
Water Infrastructure	EB Barrio Ríos 2
Water Infrastructure	EBAS Piedras Blancas
Water Infrastructure	EBAS Hacienda Elena 1
Water Infrastructure	EBAS Hacienda Elena 2
Water Infrastructure	EBAS Paseos de San Juan
Water Infrastructure	EBAS Monte Brisas
Water Infrastructure	EBAS Martínez Nadal
Water Infrastructure	EBAS Colinas Metropolitanas
Water Infrastructure	EB Barrio 1
Water Infrastructure	EBAS Mansiones de Guaynabo
Water Infrastructure	EBAS Palmar del Río
Water Infrastructure	EB Camarones Grande
Water Infrastructure	EB Finca Rosso 1 & 2
Water Infrastructure	EBAS Amelia
Water Infrastructure	EB Booster Tintillo
Water Infrastructure	EBAS Gardenville
Water Infrastructure	EBAS Prado Alto
Water Infrastructure	EBAS Colimar
Water Infrastructure	EBAS Pórticos de Guaynabo
Water Infrastructure	EB Piedras Blancas Nueva
Water Infrastructure	EBAS Hacienda Elena
Water Infrastructure	EBAS Ridge Top Luxury Apts.
Water Infrastructure	EBAS Sierra Berdecía
Water Infrastructure	EB Comunidad
Water Infrastructure	EBAS Comunidad Guaynabo
Water Infrastructure	EBAS Mabó
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	HealthPro Med

Emergency Response Plan

Base Plan

Industrial	Cardial Health (Pharmaceutical Products Warehouse)
Industrial	ZimVie Oatient Care (Medical Devices)
Water Infrastructure	EB Caimito 2 (El Cotto)
Water Infrastructure	EB Linda Gardens
Water Infrastructure	EB Sunset Hills
Water Infrastructure	TQ El Minao
Water Infrastructure	EB Lomas del Sol
Water Infrastructure	EB López Cases
Water Infrastructure	EB La Marquesa
Water Infrastructure	EB Hato Nuevo 1 & 2
Water Infrastructure	EB Sonadora
Water Infrastructure	EB Canta Gallo
Water Infrastructure	EB López Case 1 & 2
Water Infrastructure	EB El Mirador
Water Infrastructure	TQ & EB Camarones Centro
Water Infrastructure	EB Los Almendros
Toa Baja District	
Municipalities	Cataño, Corozal, Dorado, Naranjito, Toa Alta, Toa Baja
Cataño	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Mercedes García de Colorado – School
Emergency Shelter	Isaac del Rosario – School
Flood Control	Juana Matos Pump
Flood Control	La Malaria Pump
Flood Control	Bay View Pump
Water Infrastructure	Bayamón RWWTP

Emergency Response Plan

Base Plan

Critical Facilities Level 2

Facility Type	Description
Medical Facility	CDT Eulalia Kuilan
Elderly Home	Egida Mundo Feliz
Water Infrastructure	EBAS Bay View
Water Infrastructure	EBAS El Coquí
Water Infrastructure	EBAS Siderugica
Water Infrastructure	EBAS Vegas 1
Water Infrastructure	EBAS Levittown 1
Water Infrastructure	EBAS La Puntilla
Water Infrastructure	Well Levittown 4
Water Infrastructure	EBAS Puente Blanco
Industrial	Baxter Healthcare (Medical Warehouse)

Corozal

Critical Facilities Level 1

Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Dr. José Padín – School
Emergency Shelter	S.U. Demetrio Rivera – School
Emergency Shelter	S.U. Julián Marrero – School
Water Infrastructure	Corozal WWTP
Water Infrastructure	Water reservoir & PF Cibucos
Water Infrastructure	Water reservoir & PF Negros

Critical Facilities Level 2

Facility Type	Description
Water Infrastructure	EB Abras
Water Infrastructure	EBAS El Idilio
Water Infrastructure	EB Padillas

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Monte Rey
Water Infrastructure	EBAS Cerro Monte
Water Infrastructure	EBAS María del Carmen
Water Infrastructure	EB Goveo 2
Water Infrastructure	EBAS Estancias de Palmarejo
Water Infrastructure	EB Booster Palmarito
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Plaza del Carmen Medical Services
Medical Facility	CDT Salud Integral en la Montaña, Inc.
Dorado	
Critical Facilities Level 1	
Facility Type	Description
Hospital	Sabanera Health – Doctor's Center Hospital
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Cristóbal Santana Melecio – School
Emergency Shelter	Elemental Bo. Higuilar (Ecológica) – School
Emergency Shelter	Jacinto López Martínez – School
Emergency Shelter	José Santos Alegría – School
Emergency Shelter	Luis M. Valderrama (San Antonio) - School
Water Infrastructure	Dorado WWTP
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Dorado Community Health
Medical Facility	Atlantis Renal Centro of Dorado - Dialysis
Water Infrastructure	EBAS Monte Elena
Water Infrastructure	EBAS Los Montes
Water Infrastructure	EBAS Dorado del Mar

Emergency Response Plan

Base Plan

Water Infrastructure	EB San Juan Cement
Water Infrastructure	EBAS San Antonio
Water Infrastructure	EBAS Dorado Country Estates
Water Infrastructure	EBAS Mameyal
Water Infrastructure	EBAS Costa de Oro
Water Infrastructure	EBAS Valle Dorado
Water Infrastructure	Well Nevárez
Water Infrastructure	EBAS Dorado Beach East
Water Infrastructure	EBAS Molinos del Río
Water Infrastructure	EBAS Dorado Regency
Water Infrastructure	EBAS Sabanera
Water Infrastructure	EBAS Grand Palm
Water Infrastructure	EBAS Arenales
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	CDT Dorado Medical Complex
Naranjito	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Francisco López Cruz – School
Emergency Shelter	Francisco Roque Muñoz – School
Emergency Shelter	Rubén Rodríguez Figueroa – School
Water Infrastructure	PF Cedro Arriba
Water Infrastructure	Water reservoir Cedro 1 & 2
Water Infrastructure	Naranjito WWTP
Critical Facilities Level 2	
Facility Type	Description

Emergency Response Plan

Base Plan

Medical Facility	Centro de Salud Integral de Naranjito
Medical Facility	Fresenius Medical Care - Dialysis
Water Infrastructure	EBAS Lago La Plata 1 thru 3
Water Infrastructure	EB Soterrada PR 181
Water Infrastructure	EB Los Cerros
Water Infrastructure	EBAS Achiote 1 & 2EB Guadiana
Water Infrastructure	EBAS Jardines de Naranjito
Water Infrastructure	EB Soterrada Mulitas
Water Infrastructure	EB Lomas del Viento 1 & 2
Water Infrastructure	EB Los Cuadrados
Toa Alta	
Critical Facilities Level 1	
Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Adela Rolón Fuentes - School
Emergency Shelter	Alejandro Jr. Cruz – School
Emergency Shelter	José M. del Valle – School
Emergency Shelter	Nicolás Sevilla – School
Water Infrastructure	Toa Alta WWTP
Water Infrastructure	Water reservoir & PF Enrique Ortega (La Plata)
Water Infrastructure	Water Reservoir La Plata
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Toa Alta
Water Infrastructure	EBAS Palacios Marbella
Water Infrastructure	EBAS Palacios del Río
Water Infrastructure	EBAS Mansiones de Monte Casino
Water Infrastructure	EBAS Monte Verde

Emergency Response Plan

Base Plan

Water Infrastructure	EBAS Jardines de la Fuente
Water Infrastructure	EBAS La Providencia
Water Infrastructure	EBAS Monte Sol
Water Infrastructure	EB El Convento
Water Infrastructure	EBAS Jardines de Toa Alta
Water Infrastructure	EB Quebrada Cruz
Water Infrastructure	TQ & EB Lomas 2
Water Infrastructure	EBAS Toa Linda
Water Infrastructure	EBAS Villa Matilde
Water Infrastructure	EB Barrio Ortiz
Water Infrastructure	EB Hidroneumático Quebrada Cruz
Water Infrastructure	EBAS Palacios Reales
Water Infrastructure	EBAS Dorado Club
Water Infrastructure	EBAS Praderas del Río
Water Infrastructure	EBAS Toa Alta Heights
Water Infrastructure	EBAS Paseo de Alta Vista
Water Infrastructure	EBAS Fuente Bella
Water Infrastructure	EB Contorno
Water Infrastructure	EB New Winche
Water Infrastructure	Well Santa Rosa
Water Infrastructure	EBAS Green Valley
Water Infrastructure	EBAS Veredas del Río
Water Infrastructure	EBAS Pinas (EL Cementerio)
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Salud Integral de la Montaña 1
Medical Facility	Salud Integral de la Montaña 2
Water Infrastructure	TQ & EB Lomas 2
Toa Baja	
Critical Facilities Level 1	

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Facility Type	Description
Police	State Station
Fire	State Station
Emergency Management	OMME
Emergency Shelter	Community Center Jesús Matías
Emergency Shelter	Community Center Barrio Pájaros
Emergency Shelter	Community Center José Pipo Negrón
Emergency Shelter	Altinencia Valle – School
Emergency Shelter	Dr. Pedro Albizu Campos – School
Emergency Shelter	Efraín Sánchez Hidalgo – School
Emergency Shelter	Ernestina Bracero - School
Emergency Shelter	José Robles Otero - School
Emergency Shelter	María J. Corredor Rivera – School
Emergency Shelter	Martín García Guisti
Emergency Shelter	José Nevárez – School
Emergency Shelter	Complejo Deportivo Avoli
Emergency Shelter	Francisca Dávila Sempit - School
Critical Facilities Level 2	
Facility Type	Description
Medical Facility	CDT Centro de Servicios Médicos de Levittown
Medical Facility	Metro Pavía Clinic
Medical Facility	Morovis Community Health Center
Medical Facility	The Renal Centre of Toa Baja
Elderly Home	Golden Age Tower
Water Infrastructure	EBAS Las Colinas
Water Infrastructure	EBAS San Pedro
Water Infrastructure	EBAS Lagos de Plata
Water Infrastructure	EBAS Camino del Mar
Water Infrastructure	Well Levittown 6
Water Infrastructure	EBAS Levittown 2

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Water Infrastructure	EBAS La Pachanga
Water Infrastructure	EBAS Toa Baja
Water Infrastructure	EB Río Lajas
Water Infrastructure	EBAS Candelaria Arenas
Water Infrastructure	EBAS Palo Seco EBAS Campanillas
Water Infrastructure	EB La Pepsi
Water Infrastructure	Well Campanill 8
Water Infrastructure	Well Campanilla 6
Water Infrastructure	EBAS Vacío Ingenio
Water Infrastructure	EBAS Las Gaviotas
Critical Facilities Level 3	
Facility Type	Description
Medical Facility	Metro Pavía Clinic – CDT
Medical Facility	Morovis Community Health Center – Toa Baja
Water Infrastructure	EB Bucarones
Industrial	Panamerican Grain (Food Warehouse)
Water Infrastructure	EB Tres Calles

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Appendix D: Key Contacts

LUMA, particularly the Liaison (LNOs) position, maintains an updated list of partners, key stakeholders, and external contacts for daily operations, status updates, and restoration purposes.

LUMA liaises with PREB, P3A, FEMA, DOE, Genera-PR, PREPA, and PREMB, during an activation. In addition, Regional Interagency Coordinators (LRIACs) act as LUMA's point of contact in the PREMB Regional EOCs to communicate regional emergency-related priorities to the LEOC. The LRIACs also assist the PREMB Regional EOCs in determining if regional T&D System emergencies or outages have been reported to the LUMA Contact Center and/or LEOC. The LRIACs are supported by a LUMA Regional Key Account Representative established during normal operations relationships with mayors. Genera-PR and PREPA may designate liaisons to the LEOC, and FEMA also dispatches its own liaisons, depending on the circumstances.

Agency	Title	Phone Number	Address
FEMA	Infrastructure Branch Director	787-720-3510	PR CAO (FEMA Puerto Rico Caribbean Area Office) - Emergency Management
FEMA	R2 Caribbean Area Office Coordinator -PR	787-720-3887	PR CAO (FEMA Puerto Rico Caribbean Area Office) - Emergency Management Ministry San Juan, PR 00926
CISA	Director of Communication	787-565-2942	Puerto Rico State Homeland Security Office Region 2 San Juan, PR
DOE	Recovery Coordinator	787-332-0914	209 C. Manuel Camuñas, San Juan, 00918
Genera PR	Emergency Interagency Coordinator	787-474-2550	American International Building Plaza 250, Avenue Luis Muñoz Rivera, Road #1 San Juan PR
PREB	Emergency Interagency Coordinator	787-523-6262 787-562-9432	World Plaza Building 268 Muñoz Rivera Ave, San Juan, PR 00918
P3A	Cooperative Office Liaison	787-722-2525	Government Center Roberto Sanchez Baldorioty de Castro Avenue San Juan, PR
PREPA	Emergency Interagency Coordinator	787-521-4950, 4951, 5946, 5945	Ponce de León Avenue #1250 San Juan PR 00907
PREMB	Operations Director	787-724-0124	Road # 1 Quebrada Arenas San Juan, PR 00926

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Appendix E: Referenced Documents

This appendix lists more comprehensive documents referenced throughout the ERP, such as policies, Standard Operating Guides (SOGs), and analogous materials.

Document	Section Referenced
Vegetation Management Plan	5.2.1 Energy (BP)
HSE Safety Manual *	8.3 Safety
Health and Safety Training Plan	8.3 Safety
SOG LEOC Guidebook	6.2 Plan Activation (BP)
Telematics Policy	8.3.4 Telematics (BP)
SOG Public Information Officer	10. Communications (BP)
SOG LPE Customers Policy	10.2.2 Critical Customers (BP)
Communications with Municipalities and in an Emergency	10.3.4 Communication with Municipal Officials (BP) and Annex G 4.3.1 Key Accounts
Policy and Procedure for Emergency Preparedness Trainings	12.3 Training (BP)
LUMA's Multi Year Training and Exercise Plan (MYTEP)	12.3 Training (BP)
2024-2027 Multiyear training calendar (PREMB's yearly training calendar)	12.4 Exercises (BP)
Guide to Create Family Emergency Preparedness Plan	12.6 Employee and Family Emergency Preparedness (BP)
SOG LEOC Manager	Appendix B (BP)
SOG LNO	Appendix B (BP)
Operations Continuity Plan TOC's and DOC's	Annex A
Wildfires Event Protocol	Annex B
Electric System Preparedness Protocol for Tropical Cyclone Events	Annex D, Appendix B

*Includes guides, protocols and checklist: General Safety, Job Hazard Analysis, Personal Protective Equipment, Respiratory Protection, Minimum Approach Distances, Hazzard Communication, Welding and Cutting, Helicopter Safety, Confined Space Entry, Fall Prevention and Protection, Ladders and Scaffolds, Hearing Conservation, Lockout and Tagout, Working with Electricity, Motor Vehicle Safety, Trenching and Excavating, Contractor Safety, Maintenance of Traffic, Mobile equipment Safety, Crane-Suspended Personnel Platform Pre-Lift Meeting Checklist, Job Hazard Analysis Form, Confined Space Entry Permit, Scaffold Inspection Checklist, Driver Tailboard Form, Trenching and Excavating Form, Critical Lift Checklist, Crane Suspended Personnel Platform Trial Form and Checklist A.

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Appendix F: PREB / P3A Report Templates

The templates provided serve to identify the event stage in accordance with the information available at the time of the report. Given the situational dependency and potential variability in available information, users are advised to verify the suitability of the content for their specific circumstances.

Emergency Event Stage Sample Report Template

In compliance with Section 5.14(b) of the Transmission and Distribution Operation and Maintenance Agreement (T&D OMA) and the LUMA Emergency Response Plan (ERP), LUMA is providing an update on LUMA's response to the Emergency Event as described below.

For known possible Emergency Events, a Pre-Event Stage Report is submitted daily or more frequently if deemed necessary or the event type changes. The information available and the cadence of the reporting will vary depending on the event stage. Finally, once the event has ended, LUMA will notify the PREB. For additional details, please refer to Tables 14 and 15 of Annex A.

The information included in this report is current as of XX:XX hrs. on YYYY-MM-DD.

LUMA Emergency Event Stage Sample Report	
1	Date and Time of Report
2	Event Date
3	Event Time
4	Event Name
5	Event Summary
6	Weather Forecast & Monitoring
7	Incident Commander / Deputy IC
8	Operational Period (OP)
9	LUMA Event Classification
10	LEOC Activation
11	Customer Outage %
12	Total Customers without Service
13	Total Customers with Service
14	Estimated Time of Restoration
15	Status of Crews
16	Safety
17	Expected Event Classification Type and Changes to Event Classification Type (and all facts considered in determination)
18	Likelihood of LEOC Activation and Activation Level (date/time LEOC opens)

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LUMA Emergency Event Stage Sample Report	
19	System Operations (Generation Updates)
20	LUMA Resource Readiness (actions taken and type/quantities)
21	Forecasted Number and Type of Total Resources Required (number of crews and full-time equivalents)
22	Number of External Resources Secured (by type and including the number of crews and full-time equivalents)
23	Incident Objectives for the Operational Period
24	Initial Response Stage Status
25	Global and Regional ETRs (If available)
26	Restoration Stage Status
27	Customer Outages
28	Status of Life Preserving Equipment Dependent (Customers) and Critical Customers
29	Problems Anticipated / Encountered for Event
30	Any Other Pertinent Information:
31	Signature and Date & Time
32	Event Duration (in hours)
33	Total Customers Served
34	% of Customers Affected
35	Highest Peak # of Customers Affected

Estimated Time of Restoration (ETR) Sample Report

LUMA will provide daily updates on the estimated time of restoration (ETRs) once the restoration stage has commenced. For additional details, please refer to Tables 14 and 15 of Annex A.

The information included in this report is current as of XX:XX hrs. on YYYY-MM-DD.

Regional Estimated Time of Restoration				
Region	Total Customers in Region	Total Customers Restored	% Of Customers Restored	ETR*
Arecibo				
Bayamón				
Caguas				
Mayagüez				
Ponce				
San Juan				

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Regional Estimated Time of Restoration

Region	Total Customers in Region	Total Customers Restored	% Of Customers Restored	ETR*
Global – System-Wide				

*Estimated time of restoration for 90% of service outages.

Municipal ETRs

Municipality	Total LUMA Customers	Total Customers Out	Outage %	Estimated Times of Restoration (ETR)
Arecibo				
Adjuntas				
Arecibo				
Barceloneta				
Camuy				
Ciales				
Florida				
Hatillo				
Jayuya				
Manati				
Morovis				
Utuado				
Vega Alta				
Vega Baja				
Bayamon				
Bayamon				
Catano				
Corozal				
Dorado				
Guaynabo				
Naranjito				
Toa Alta				
Toa Baja				
Caguas				
Aguas Buenas				
Aibonito				
Barranquitas				
Caguas				

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Municipal ETRs				
Municipality	Total LUMA Customers	Total Customers Out	Outage %	Estimated Times of Restoration (ETR)
Cayey				
Ceiba				
Cidra				
Comerio				
Culebra				
Fajardo				
Gurabo				
Humacao				
Juncos				
Las Piedras				
Luquillo				
Naguabo				
Orocovis				
San Lorenzo				
Vieques				
Yabucoa				
Mayagüez				
Aguada				
Aguadilla				
Anasco				
Cabo Rojo				
Isabela				
Lajas				
Lares				
Las Marías				
Maricao				
Mayagüez				
Moca				
Quebradillas				
Rincon				
Sabana Grande				
San Germán				
San Sebastián				
Ponce				
Arroyo				

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Municipal ETRs				
Municipality	Total LUMA Customers	Total Customers Out	Outage %	Estimated Times of Restoration (ETR)
Coamo				
Guánica				
Guayama				
Guayanilla				
Juana Díaz				
Maunabo				
Patillas				
Penuelas				
Ponce				
Salinas				
Santa Isabel				
Villaba				
Yauco				
San Juan				
Canóvanas				
Carolina				

Emergency Response Plan

Annex A – Major Outage Restoration

LUMA Energy

NEPR-MI-2019-0006

May 29, 2026



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Annex A – Major Outage Restoration

List of Acronyms

ACRONYM	DEFINITION
AAR	After Action Report
CMC	Crisis Management Committee
CSR	Customer Service Representatives
DAs	Damage Assessment Strike
EOC	Emergency Operations Center
ERP	Emergency Response Plan
ESF-12	Emergency Support Function
ETR	Estimated Time of Restoration
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise Evaluation Program
HSEQ	Health Safety Environment & Quality
HVX	Hurrevac
IAP	Incident Action Plan
IC	Incident Commander
ICC	Incident Command Center
ICS	Incident Command System
IT	Information Technology
IVR	Interactive Voice Response
JIC	Joint Information Center
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
LNO	Liaison Officer
MOE	Major Outage Event
MOU	Memorandum of Understanding
NWS	National Weather Service
OE	Outage Event
OMA	Operations Management Agreement
OMS	Outage Management System

Emergency Response Plan

Annex A – Major Outage Restoration

ACRONYM	DEFINITION
P&I	Planning & Intelligence
P3A	Puerto Rico Public-Private Partnerships Authority
PIO	Public Information Officer
PREB	Puerto Rico Energy Bureau
PREMB	Puerto Rico Emergency Management Bureau
PREPA	Puerto Rico Electric Power Authority
PSA	Public Service Announcement
RC	Road Closure
ROCC	Regional Operations Command Center
SCADA	Supervisory Control and Data Acquisition
SERT	System Emergency Restoration Team
SITREP	Situational Report
T&D	Transmission & Distribution

Emergency Response Plan

Annex A – Major Outage Restoration

1.0 Purpose

The purpose of LUMA's Major Outage Restoration Annex (Annex A) is to establish an operational and tactical comprehensive framework for responding to major outage restoration events. Annex A assists the LUMA Emergency Operations Center (LEOC) personnel in carrying out the actions necessary to protect lives, maintain continuity of service, and protect property. It also provides the Puerto Rico Energy Bureau (PREB), the Puerto Rico Public-Private Partnerships Authority (P3A), the Puerto Rico Emergency Management Bureau (PREMB), and other agencies with guidance on how LUMA responds and prioritizes electrical system outages with Community Lifeline overarching principles. This Annex helps ensure the safety of the public and employees and implements an effective restoration strategy that is consistent across the company.

2.0 Scope

Annex A applies to emergency events caused by any hazard or threat that results in, or could result in, a major potential impact on the integrity of the Transmission and Distribution (T&D) System or disruption of electrical service to LUMA customers. Additionally, the Emergency Response Plan (ERP) applies to LUMA personnel and to any staff of LUMA, affiliate company employees, contractors, mutual aid resources, or any other personnel working at the direction or under the authority of LUMA.

For Annex A, an Emergency Event Type is defined as a Type 3, 2, or 1 event. Non-Emergency Events are defined as Type 5 and 4 events. All five of these types are described in the Event Classification and LEOC Activation Table, located in Base ERP, Appendix A.

LUMA's Emergency Operational Boundaries (shown in Figure 3 of the Base ERP) are split geographically into divisions. There are six Regions assigned to divisions. For a description of the ERP Guiding Principles, refer to the ERP - Base Plan, Section 2.

3.0 Situation and Assumptions

3.1 Situation

The success of LUMA's response to a Major Outage is predicated on LUMA's commitment to prepare and implement procedures outlined within Annex A and the ERP – Base Plan. The development of an After-Action Report (AAR) further enables ongoing improvement in LUMA's response and restoration processes. Execution of the appropriate responses to effect rapid and safe recovery is dependent upon the scalability of Annex A. The number of customers affected, and the magnitude of a Major Outage Event vary, but the operational concept stays consistent. The level of recovery resources can be adjusted as needed.

LUMA is taking an aggressive approach to hardening the T&D System across Puerto Rico to withstand major weather events. Through these efforts, major hurricanes like Maria will be less impactful to the T&D System, which supplies critical energy to LUMA customers. Due to the configuration of Puerto Rico's T&D grid in relation to the location of the generation, LUMA focuses on hardening key transmission lines to distribute energy to High-energy consumption areas. Critical system substation rebuilding is another area of focus.

Emergency Response Plan

Annex A – Major Outage Restoration

LUMA is committed to applying to Non-Federal Capital (NFC) and Federal Emergency Management Agency (FEMA) funds to improve system resilience through storm hardening. Thus, reducing the size and frequency of service interruptions. This involves a multi-faceted multi-year approach, including:

- Hardening key transmission lines that distribute energy to key load centers.
- Hardening the feeder backbone (normally the three-phase part of the circuit that runs unfused from the substation to the normally open ties to other circuits or the physical end of the circuit).
- Hardening distribution express feeders that serve Community Lifelines.
- Targeting high-risk vegetation (excessive overhang or trees near lines that appear susceptible to falling during a major event) for proactive “hot spotting.”
- Testing and inspecting poles and structures and remediating identified risks.
- Sectionalizing with strategic placement of reclosers (enhanced with directional finding capabilities) and addressing any unfused taps.
- Strategically placing lightning arrestors.
- Performing physical inspections, identifying, and categorizing deficiencies, and performing corrective maintenance on those deemed as requiring urgent or emergency action.
- Rebuilding critical substations (particularly those susceptible to flooding), and
- Addressing the damaged or partially restored infrastructure impacted by Hurricane Maria, Hurricane Fiona, Tropical Storm Ernesto, and seismic events.

3.2 Assumptions and Considerations

The ERP-Base Plan, Section 4, identifies the overall assumptions and considerations. Assumptions identified within this Annex are in addition to, but not limited to, the following:

- Damaged sections of the electrical system may be de-energized and isolated, allowing service to be restored up to the point of damage, and leaving the site safe until permanent repairs can be completed.
- Repairs are completed in a timely manner.
- Assessments of needed repairs are conducted prior to discharging restoration crew resources.
- Pre-positioned contracts, Memorandums of Understanding, and Mutual Aid Agreements are maintained and activated when the scope of the incident requires additional resources beyond LUMA's capabilities.
- Facilitate coordinated response efforts and share information prior to, during, and after the event to assist in establishing a common operating picture and efficient response.

Emergency Response Plan

Annex A – Major Outage Restoration

4.0 Concept of Operations

In the event of a major outage, LUMA responds and quickly assesses the impact on the T&D infrastructure. Then, it takes the necessary actions to mitigate cascading effects from a long-term power outage and restore service, minimizing the impact on the citizens of Puerto Rico.

4.1 Response and Restoration Operations

The IC is responsible for the Restoration Operations conducted in response to an event that impacts LUMA's electric system. The directives from the LEOC follow the LUMA Restoration Strategy identified in Section 6.

4.2 Emergency Event Stages

LUMA has developed different emergency stages to outline when different response activities take place in relation to an emergency event. The key objectives of the stages and periods as they relate to system restoration are outlined in Table 14, Table 15, and Appendix A.

- **Pre-event stage:** The time from when an emergency event is anticipated to when it occurs. Activities include planning and preparedness efforts as outlined in Section 6.2.3 of the ERP-Base Plan.
- **Emergency stage:** The time at which a hazard is resulting in an impact on the T&D System. During the emergency stage, teams seek shelter and stay in a safe location. Sheltering may not always be required but is employed during certain incidents, such as severe weather conditions, hazardous material releases, or other events that pose a risk to public safety.
- **Initial response stage:** The period after conditions is safe until the preliminary Damage Assessment (DA) is completed. Customer restoration will begin in accordance with LUMA's restoration priorities. The duration of the initial response period is relative to the duration of service restoration. Events with a shorter anticipated duration of service restoration have shorter initial response periods.
- **Restoration stage:** The time after the preliminary DA is complete until (a) fewer than 10,000 customers remain out of service for a continuous period of 8 hours, marking the end of the Major Outage Event, and (b) the Activation Level is reduced to level 4 or level 5. The length of time of the restoration period depends on the resources required to resolve the remaining outages and the extent of damage remaining on out-of-service assets.
- **Demobilization stage:** The time after the restoration has been completed, resources are beginning to be demobilized from response efforts on an increasing scale. The rate of demobilization depends on the predicted workload and resources needed. The demobilization period continues until all services across the impacted areas have been restored. Note that some resources may be demobilized from regions, branches, and units before the demobilization stage based on the changing characteristics of an event.

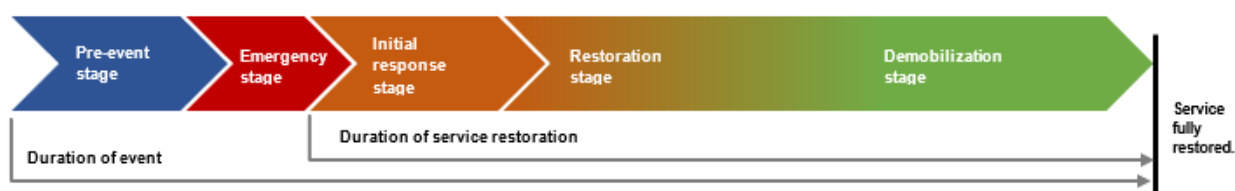
Emergency Response Plan

Annex A – Major Outage Restoration

- Duration of service restoration: The total length of time to restore all services related to an emergency event. This includes the initial response period, the restoration period, and the demobilization period.
- Duration of event: The total length of time from the pre-event stage until: (a) the LUMA Emergency Roster (LER) is fully deactivated, and (b) all impacted services have been restored.

The relationships between the stages of an emergency event, as they relate to a Major Outage Event, are shown in Figure 1 below.

Figure 1: Emergency Event Stages.



4.2.1 Approach

During emergencies, the Operations Section is responsible for safely and efficiently assessing the damage to the T&D infrastructure and restoring electric service. To accomplish this strategy, the Field Operations Branch Director East & West reports to the Operations Section Chief within the LEOC.

The Incident Command System (ICS) is flexible depending on the event's level of decentralization. Under the direction of the Field Operations Branch Director East & West, the field teams respond to the event as efficiently as possible.

- The System Emergency Restoration Teams (SERTs) are responsible for general restoration, vegetation clearing (tree removal), and system repairs.
- The Site Safety Branch is responsible for facilitating the response to downed wires (making safe or guarding the site from the public) and other immediate Health, Safety, and Environment situations.
- Priority Restoration Group (PRG) is responsible for the priority restoration of critical facilities. The PRG operates in a centralized or decentralized environment as required.
- Damage Assessment Strike (DAs) Teams are responsible for conducting and reporting on DAs.
- Dispatch supports all emergency response and restoration requests for field teams and Emergency Operations Centers (EOCs).

The mobilization of field personnel following an event will be considered the point in time when 1) field personnel are able to be dispatched without unacceptable safety risks from continued dangerous conditions (where adverse weather conditions are applicable) and 2) when the potential additional damage to the electric system would be low in proportion to the expected level of damage already sustained. The Mobilization timelines could be different for specific local areas where the effect of an emergency limits access to facilities (e.g., severe flooding).

Emergency Response Plan

Annex A – Major Outage Restoration

In any emergency, three vital pieces of information must be gathered to enable an effective restoration:

- Number of electric customers out of service.
- Amount of damage to the T&D System.
- Manpower available (along with the timing of availability) to repair the damage.

Following an outage and activation of the LEOC, restoration of electrical services is conducted following four basic stages:

Emergency Stage

T&D infrastructure presents an extreme risk to the public during a damaged state. Safety Teams rapidly respond to protect and correct any identified situation.

Initial Response Stage

DAs assist with the estimation of the time needed to assess and complete restorations.

Restoration Stage

SERT priorities are identified and sorted by critical facilities and the highest customer count. PRG priorities continue to be sorted by any locally prioritized Level 2 and Level 3 priorities within the critical facilities list. Continue preliminary to develop detailed DAs.

LUMA continually supports the “Safety Always” objective. Specific tactical objectives include fire/public-safety priority assistance, timely restoration, and providing useful, timely, and accurate information to all stakeholders.

To facilitate expedient restoration and to maximize the optimal use of the workforce by focusing on making immediate, temporary repairs to restore power and postponing time-consuming permanent repairs until after the LEOC activation is concluded and power has been restored.

A variety of factors and circumstances are considered when assigning work, including but not limited to, the following:

- The type and availability of necessary resources to complete the repair.
- The proximity of available resources.
- The specific needs of the response.
- The type or the number of customers affected by the repair, and the time necessary to complete each specific restoration.

Demobilization Stage

The time after restoration has been completed. This period continues until all services across the impacted areas have been restored.

4.2.2 Preparation and Staging of Personnel

When an impending threat is known with reasonable certainty, precautionary staging of personnel can help facilitate a rapid response. The most critical component is the ability to be flexible to expand and retract to optimum levels as the threat becomes more certain. An anticipated and planned impending major outage

Emergency Response Plan

Annex A – Major Outage Restoration

requires an appropriate mobilization of personnel to respond to and recover from an emergency event in an efficient and timely manner.

The Incident Commander (IC) has overall responsibility for notifying the Command Staff. The IC might activate other roles as necessary to serve the response based on incident developments and the Event Classification. These determinations affect the level of mobilization of personnel based on the estimated impact of the emergency event. Upon notification, the Command and General Staff subsequently notify and mobilize the personnel from their respective sections and direct them to initiate their emergency restoration callouts.

The activated personnel then begin preparedness activities, including damage predictions. Damage predictions can be based on various methods depending on the specific threat. It includes historic outage events, observed damages from prior threats, and models under development from educational institutions and industry partners. The objective of the damage prediction is to determine a high-level estimate of the predicted number of outages or damages to the T&D system from a specific assessment, with the goal of determining which areas of the T&D system are most likely to sustain damage. Based on the output of the damage predictions, LUMA then determines where to stage internal DA teams, and if additional contractor or pre-positioned contracts will be required for the response. Based on the responses from the contractor and pre-positioned contracts, LUMA mobilizes personnel to ensure they are staged near where damage is anticipated, and does so when it is safe.

In accordance with the LUMA Major Outage Event Metrics in Appendix A, section 4, Crewing, LUMA's mobilization timeline is identified.

Table 1: Mobilization of Personnel

Mobilization of Personnel	
Time After Damage Prediction	Percentage of Crews Available for Response Activities
Within 24 hours	50%
Within 48 hours	80%

4.2.3 LUMA Resources

The Operations Section Chief makes a notification to the T&D Operations Branch Director. The T&D Operations Branch Director is responsible for making notifications to the T&D Operations Branch staff in their respective geographic region or SERT boundary.

Regional Commanders are responsible for notifications to, and mobilization of, division personnel required for operational emergency response, proportionate to the size, scale, and complexity of the emergency. Subsequently, these elements notify and mobilize personnel from their respective branches, regions, and SERT teams, and direct them to initiate their emergency restoration activation protocol.

Requested resources report to their designated staging area(s) or dispatched response locations. Various crews may include:

- Troubeman Triage (One-Person Crews)
- Troubeman Overhead Line Crews (Two-Person Crews)

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- Troubleman Underground Crews (Two-Person Crews)
- Powerline Construction Crew
- DA Strike Teams
- Wire Watcher Teams
- Substation Workers/Techs
- Telecom Workers
- Transmission Line Workers
- Equipment Operators

4.2.4 Pre-positioned Contract Crews

The activation and assignment of crews are a valuable aspect of the restoration process. LUMA may activate contingency contract manpower, or contracts that have been pre-negotiated in accordance with LUMA and FEMA procurement policy. These contract crews support the restoration of the T&D System by increasing the capacity of the organization, which is dependent on the severity of the emergency event and could include any of the following:

- Troubleman Triage (One-Person Crews)
- Troubleman Overhead Line Crews (Two-Person Crews)
- Troubleman Underground Crews (Two-Person Crews)
- Underground Splicing Crews
- Powerline Construction Crew
- Tree/Vegetation Crews
- DA Strike Teams
- Wire Watcher Teams
- Substation Workers/Techs
- Telecom Workers
- Transmission Line Workers
- Equipment Operators

The divisions are routinely engaged in the type of work necessary to restore electrical service. Traditional lines of communication exist between these divisions that facilitate the coordination of the day-to-day contractor workforces in all conditions of readiness to the degree necessary.

4.2.5 Mutual Aid Support

Mutual assistance is an essential part of the electric power industry's service restoration process and contingency planning on the island of Puerto Rico where utility-qualified resources are limited. The mutual assistance program is a voluntary partnership of electric companies across the United States which. It would allow LUMA to increase the size of its workforce by "borrowing" restoration workers (employees or contractors) from other companies from unaffected areas. As an operating utility in Puerto Rico, LUMA leverages through the Puerto Rico Electric Power Authority (PREPA) access to the American Public Power Association (APPA) mutual aid agreement. LUMA signed an agreement in 2021 with Edison Electric Institute (EEI). This is all secondary to the pre-positioned contracts, as mentioned above.

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4.2.6 National Guard Assistance

The Puerto Rico National Guard, when activated by the Governor, is frequently called on to conduct disaster response and domestic emergency missions. Puerto Rico National Guard forces can provide surge logistics, transportation, communication assistance, and general-purpose capability to areas identified by the PREMB to supplement LUMA emergency response by expediting power restoration during the initial response to an incident.

4.2.7 Initial Response Stage

For Major Outage Events, LUMA begins a preliminary DA of the affected area(s) or T&D facilities when it is safe to do so. The preliminary DA is completed within a reasonable time (see Table 2) at the beginning of the operation response stage in accordance with the LUMA Major Outage Event Metrics in Appendix A. Reasonable times are determined by the duration of service restoration (refer to Section 4.4).

The goal of the preliminary DA is to enable safe restoration of system as quickly as possible and help identify municipalities that may qualify for federal disaster assistance. It focuses on damage preventing re-energization, safety risks and issues and major damage. It does not capture all damage to the system. The preliminary DA for transmission lines is performed primarily by the helicopter patrol while land patrols are used for distribution lines and substations with supplemental information provided by helicopter patrols included where appropriate (e.g. widespread flooding, landslides, etc).

Table 2: Reasonable Time for Preliminary DA.

Preliminary Damage Assessment Reasonable Time		
Event Type	Estimated Duration of Service Restoration	Estimated Time to Produce Preliminary DA
Type 3 – High Alert Conditions	1 to 5 days	Up to 36 hours
Type 2 – Emergency Conditions	5 to 10 days	Up to 72 hours
Type 1 – Catastrophic	Greater than 10 days	Up to 120 hours

4.2.8 Detailed Damage Assessment

A detailed DA is a key component of restoration operations. The DA process utilizes DA Strike Teams, or additional support as needed, to physically inspect and report damage on overhead primary, secondary, transmission, and substation assets. Assessment personnel are managed through the DA Branch. They provide access to their reports to the Planning & Intelligence (P&I) Section, the Operations Section, and the Regional Commanders. These determine resources and equipment requirements to make the repairs and restore services. The order of DA evaluation is based on the restoration priority list and interconnection of assets.

4.2.9 Restoration Stage

LUMA utilizes processes to repair damage and restore electrical service safely and efficiently. These restoration protocols are designed to restore power to the largest number of customers, in the shortest amount of time and in the safest way possible.

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Field DAs and repairs may commence when:

- Field personnel can be deployed without unacceptable safety risks from continued dangerous conditions.
- The potential for additional damage to the electric system is low.

4.2.10 Prioritization

Outages are prioritized by considering safety conditions, type, and number of damages to the system, critical Community Lifelines, customer type, and the number of customers affected. LUMA focuses restoration efforts to restore service to critical facilities, such as hospitals, water distribution services, telecommunications, police departments, fire departments, and other public health and safety facilities, on a priority basis, as warranted. LUMA must make prudent decisions that have the greatest gain for the overall T&D System stability and the greatest benefit for all customers.

Priority restoration cannot be guaranteed. Therefore, LUMA implements specific communication outreach programs to critical facilities, municipal governments, and key account customers to alert them to properly prepare for potential prolonged power outages and provide information and updates on LUMA's preparation and restoration activities.

LUMA must address emergency and life-threatening conditions (public safety hazards, downed wires reported by emergency responders) before restoration efforts can commence.

4.2.11 Systems Assessment

LUMA completes a high-level system assessment through the System Operations Center's Supervisory Control and Data Acquisition (SCADA), Outage Management System (OMS), and reported outages from LUMA customers. When an Event Type has been determined, personnel are assigned per the LUMA incident command structure.

All activities are assigned, assessments are documented, repairs are performed, and service is restored in accordance with the following set of general priorities:

- Eliminate unsafe conditions: the elimination of hazards to the public takes precedence during emergencies. Safety Crew personnel are activated and required to:
 - Respond to reports of downed wires.
 - Cut, clear, or repair the primary and secondary hazards.
 - Clear wires so that service may be restored up to the location of the break.
 - Prioritize response to emergency calls based on the severity of risk for areas.
 - Additionally, at the initial stages of the restoration process, LUMA may be directly assigned to municipalities to "make safe" downed wires to remove trees and other debris from major roadways.
- Transmission circuits and substations: restoration is prioritized by the T&D System Operations Branch Director.
 - Determines the need for the bulk electrical system.
 - DA and repair of transmission lines and key substations.

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- Request personnel to support the restoration of the transmission service to substations.
- Bulk distribution feeder circuits, not directly affecting substations, are assigned a priority, depending on the importance of the circuit and the effect of its loss on the bulk electrical system.
- Substation repairs are directed by the Division Branch Director of the affected area in consultation with the T&D System Operations Branch Director.

Primary distribution circuits and key feeder portions of 'locked- out' 3-phase primary distribution circuits are restored by either cutting faulted sections clear or by opening sectionalizing devices (i.e., switches). The damages are repaired, restoring all 3-phase primary distribution circuits.

- Secondary distribution lines and services areas where there is only damage to secondary distribution lines and services are restored simultaneously. Repair crews perform a final assessment of damage in the area and repair any additional damage found.
- Permanent Repairs - After all electric service has been restored, permanent repairs are made to any remaining temporary field conditions. During the restoration of service, practical, permanent repairs are made to avoid hazardous conditions and eliminate duplication of effort.

4.2.12 Supervisory Control and Data Acquisition (SCADA)

SCADA is a concept used to create software for computers that allows remote control and supervision of industrial processes. It provides real-time feedback with field devices (sensors and actuators) and controls the process automatically. It provides all the information that is generated in the production process (supervision, quality control, production control, data storage, etc.) and allows its management and intervention. Its definition is that of a group of computer applications installed on a computer called Master or MTU (Master Terminal Unit), intended for the automatic control of a remote productive activity that is interconnected with other instruments called field such as automata. Programmable (PLC) and Remote Terminal Units (RTU).

The Transmission & Distribution Operational Centers are the most important areas within LUMA. From there, the entire energy dispatch of Puerto Rico is controlled. These centers operate with SCADA control, which facilitates the operation of the Electrical System, since there is vision and control of the substations, lines and feeders. With this system it is possible to know which element of the system is out of service. In addition, generation control can be maintained, for an effective energy dispatch.

The SCADA control system is the system that allows both transmission (TOC) and distribution (DOC) operators to operate the lines, substations and feeders. The TOC operates the 230, 115 & 38 kVA lines and substations. In addition, it controls the generation to maintain a balanced system and at a frequency of 60 Hz. Regarding the DOC, it operates the lines & substations of 13.2, 8.32, 7.16 (Arecibo Region) &

4.16 kVA. The SCADA system allows engineers on duty and operators to see the system in real time, which makes it easier for them to isolate any fault that occurs in order to protect and/or stabilize the electrical system. The system has its main functionality in the TOC of Monacillos, in which 100% of the RTUs (383) are operated, with a backup (Back-Up) in the TOC of Ponce which is limited since it can only operate a little more than 2 / 3 parts of the RTUs (298). This is because many of them are not Dual Port. Loss of SCADA protocol is addressed in the Operations Continuity Plan TOC's and DOC's.

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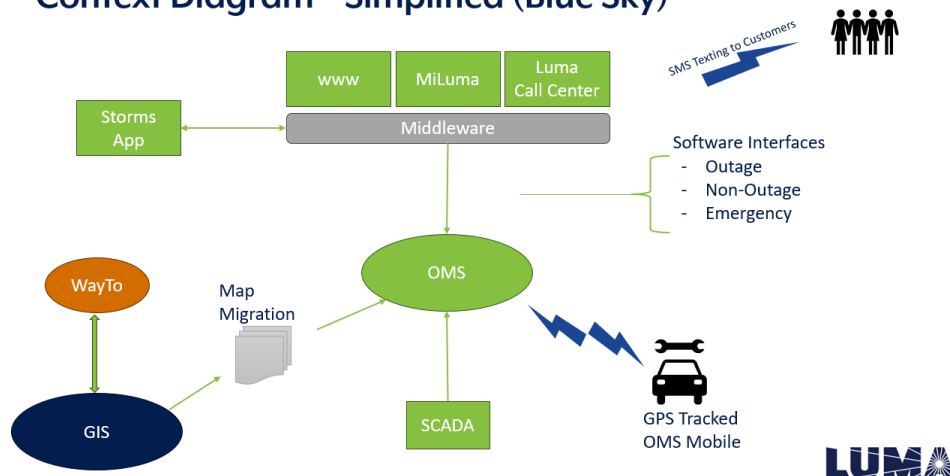
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4.2.13 Outage Management System (OMS)

LUMA uses the OMS extensively to manage customer outages. Customer outages are created inside OMS through various interface channels. Interfaces available to customers are the LUMA Call Center, Mi Luma Mobile App and LUMA webpage (see Figure 2). Outages are further created through an interface with LUMA's Energy Management System (EMS/SCADA). The OMS analyzes all reported outages from all the interfaces. Through this analysis, OMS will then know, based on the electrically connected model Geographic Information System (GIS), whether outages are in the same areas and then cluster all calls for the outages into one outage. This complex process allows OMS to simplify and predict outages, which allows dispatchers to respond outages in a prioritized and orchestrated manner.

Figure 2: Context Diagram – Simplified (Steady State)

Context Diagram – Simplified (Blue Sky)



There are no changes in how OMS operates during steady states and minor T&D incidents, such as system failures, loadshedding, or severe weather. When the electrical system experiences notable outages, OMS can be used for restoration, and all interfaces function.

During a Type 1 and 2 event, the T&D Systems Operations Branch Director under the Operations Section Chief, and the OMS Specialist, under the P&I Section Chief, provide the IC with a recommendation to disable the interfaces to OMS. This interaction and process are also followed to restore the interfaces to OMS. The Intelligence Technology Communications Branch Director, under the logistics, executes the changes to turn off and on selected interfaces. During such an event, only the Emergency Call Center phone line interface is operational.

During the period that OMS is only receiving the Emergency Call Center phone line interface, LUMA leverages the Dispatchers at the Regional Operations Command Center (ROCCs), who are in constant communication with the crews' restoring services at the distribution level. The Operators at the Distribution Operations Centers, Monacillo, Ponce, and Mayagüez, can create confirmed events where power has been restored based on the feedback from the crews performing restoration tasks. This information is manually captured to display restored services at the distribution level that are shared with customers and the public.

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Although OMS will be able to handle all interface information, the webpage, and mobile app interfaces feeding OMS are shut down for the following reasons:

- LUMA is aware and expects all customers to report outages. LUMA knows which customers are affected by the higher-level outages, which might include lack of generation, transmission, and substation level damages. LUMA presents all customers with a splash page on their devices stating that LUMA is aware of the power outages and is working on the restoration.
- LUMA is aware of the locations of critical facilities and critical customers as identified in the ERP. These types of customers are identified in LUMA's Customer Database which feeds OMS.
- The underlying electrically connected model GIS used by OMS is not accurate with many missing customers, devices, and assets because of Hurricane Maria and associated rebuild efforts by mutual aid from the mainland USA.
- There are no customer meter interfaces (smart devices, Automatic Meter Reading (AMR), or Advanced Metering Infrastructure (AMI) feeding into OMS.
- This is a common industry practice where there are no inter-ties to other utilities to get out of power blackouts and transmission collapse.
- The focus is on EMS/SCADA and power generation to first restore the transmission system to a stable state, since adding customers too fast will result in system collapse.

LUMA has placed significant focus and effort on improving our GIS, map migrated into OMS. The more accurate GIS / OMS is, the better OMS is at grouping and predicting outages. Since its commencement, LUMA implemented several improvements and tools to facilitate data accuracy and response (see Table 3). The two most significant improvements are OMS Mobile and Way To software.

OMS Mobile – Traditionally, the Dispatchers and Distribution Operators had to use two-way phone communications to dispatch outage work to Field restoration crews. This was inefficient for many reasons. Information (Customer details, locations, Estimated Time of Restoration (ETR), etc.) came in at best effort and was often incorrect. OMS Mobile now allows Dispatchers and Operators to see who is available, and where they are and then directly dispatch outage repairs to the crew. The crews can provide immediate feedback through OMS Mobile on status, ETR, and related information. Using this tool will facilitate quicker response times and better data accuracy.

Way To Software – This software uses configurable rules to inspect the electrically connected model GIS to find problems. Finding and fixing these problems in GIS allows OMS to be more accurate since the map migration process from GIS to OMS will only transfer corrected information. Rules LUMA already implemented and implemented daily include, but are not limited to, disconnected breakers, wrong voltages, de-energized circuits, tiebreaker disconnects, and wrong device states.

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Table 3: OMS Technology Improvements.

Description	Pre-Commencement	LUMA (Current State)
Map Migrations	1 in 5 Years	42
Un-powered GIS Features (Not Connected)	~60K	~30K
Breaker-to-Breaker- Tie Missing	~380 Breakers	0
De-energized D-Circuitis (Way to Software)	~90K (Implemented Apr 2023)	473
Gtech GIS Software Upgrade	Initial Install	2 Major Version Upgrades
OMS	Unsupported Version, Misconfigured	2 Major Version Upgrades (Incl. Strom Funtion)
OMS Outage Triggers (Interfaces)	Non-Integrated	Fully Integrated
OMS Outage Response – Remote	Did not exist	Outages Dispatched – Field Crew Tablets
OMS Outage ETR Estimation	WhatsApp with Crews	Field Update with OMS Mobile, back to customer Short Message Service (SMS)
Dispatch – Field Crew Tracking	Limited Vehicle Location / Crew Visibility	All Crews GPS Tracked
Critical Customers / Sites Inside OMS	Tribal Knowledge Only	Fully Integrated with CC&B, OMS
Functioning OMS Infra Environments	Production Only	Production (Prim/Sec), Development, UAT
SMS Outage Texting to Customer	None	Implemented

LUMA has improved the OMS environments, from production only to, most recently, production (primary and secondary), development, and User Acceptance Testing (UAT) environments. LUMA has done stress testing based on recommendations from the contractor supporting OMS. The System was subjected to a stress test, a process developed by the vendor based on LUMA's requests and their recommendations. The vendor was given a list of feeder breakers, where they identified the transformers and customers associated to create the scripts for the test.

The main purpose of the test was to expose OMS to a significant number of calls and events using the MQConnector, which simulates calls coming in from LEX or IVR, and the SCADA simulator for feeder outages, thus replicating events from SCADA/EMS. The scripts developed by the vendor also measured the time the system took to process the number of calls and events injected into OMS with optimal performance results. During the test, the user experience, the CPU performance, and the memory of the servers, including the database, remained stable. The scripts can be easily adapted for future tests by modifying the number of calls and messages sent to OMS.

No system degradation was exhibited. LUMA's OMS remained operable during the test.

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4.3 LUMA Event Type & Activation Level

All potential events, natural, man-made, and technological, with the potential to affect LUMA operations, are assigned a classification by the Incident Commander (IC) or designee. The IC is responsible for analyzing the severity and complexity of the incident, with the collaboration and input of the Command and General Staff. This analysis assists in identifying resource requirements and positions needed for a LEOC activation at all levels of the LER. This analysis begins in the pre-event stage and continues every operational period throughout the service restoration stage for restoration events.

It is during this analysis that the IC determines the Event Type in accordance with the ERP – Appendix A. These classification types are not directly tied to the establishment of Activation Levels, described in the ERP – Appendix A. As such, an event classification of Type 1 does not always result in the establishment of an Activation Level 1, and vice versa.

The IC may also deem it necessary to escalate or de-escalate the Event Type and Activation Level depending on changes in circumstances or where actual conditions differ from expected conditions. The Event Type depends upon the analysis of the expected severity and complexity of an event and is drawn from the consideration of numerous factors.

Five event types and activation levels have been established. Types and Levels 5 and Four 4 are considered non-emergency events and are restoration events managed as normal operations or an isolated event that do not necessitate the activation of the LEOC unless escalation occurs.

Types 1, 2, and 3 are Emergency Events, with Type 3 being less severe and Type 1 representing catastrophic emergency conditions. LUMA's Emergency Event Types (1-5), as they relate to Major Outage Events, are described in detail in Tables 5-9. This is used in conjunction with the general conditions described in the ERP – Appendix A. Note that although they are presented together for simplicity, the Event Type and Activation Level may differ depending on the characteristics and stage of restoration.

Table 4: Type 1 - Catastrophic Event Characteristics.

Type	Anticipated LUMA Operating Conditions	
Event Type 1 – Catastrophic Emergency	Viewpoint	A Type 1 event is a catastrophic event that historically results in significant damage to the electrical T&D System. Type 1 events are rare but are, in most cases, forecasted. This event requires the full implementation of ICS, and all employees are assigned shifts and scheduled in relation to their role in the ERP. All affected branches, ROCCs, and SERTs are activated. This type of event is coordinated through daily Incident Command meetings/conference calls to coordinate pre-event planning activities, restoration activities during the event, and post-event demobilization activities. Communication protocols are activated, and discussion with local and Government of Puerto Rico officials occurs before the impact and through the restoration stage.
	Characteristics	- The severity of the damage affects the entire system in such a way that restoration activities may require ten (10) days or more once it is safe to begin restoration activities. - Typically, > 50% (>700,000) customer outages at peak - Typically, > 50,000 outage events at the peak - This type of event is expected to occur between 1 and 4 times over a ten-year period.

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Type	Anticipated LUMA Operating Conditions	
Activation Level 1 – Full Activation	Response Organization	- System-wide incident command structure is activated. - All Command and General Staff posts are activated. - The LEOC and all ROCCs and SERTs are operational. - Additional catering and lodging support functions will be established at the branch or ROCC level. - Liaisons are activated. - Staging areas may be required to support external teams and resources.
	Resource Activation	- This response requires external assistance from contractors or mutual aid assistance from other utilities outside the region. - PREMB LUMA Regional Interagency Coordinators (LRIACs) are likely activated. - Additional restoration support functions will be established at the branch and divisional level of the LER, as instructed by the Section Chiefs, and approved by the IC. - The system's emergency restoration teams are activated in the most severely affected areas at the discretion of the chief of the Operations and Planning Section and are approved by the IC.
	Communication Coordination	- Federal resources coordination is likely to be required. - A written Incident Action Plan (IAP) is required for each operational period. - Pre-event stage reporting is required. - Pre-event outreach to municipalities, government officials, and regulators - Emergency stage reporting is required. - Restoration stage reporting is required. - Demobilization stage reporting is required. - An After-Action Review is required. - Post-event meetings will be held with the most severely affected communities.

Table 5: Type 2 - Emergency Conditions Event Characteristics.

Type	Anticipated LUMA Operating Conditions	
Type 2 – Emergency Conditions Event	Viewpoint	A Type 2 event is a serious event that has historically resulted in significant damage to the electrical T&D System in a region(s) or could be moderate damage throughout the territory. Type 2 events are, for the most part, predicted in advance. This is a complete ICS implementation, and most employees are assigned shifts and scheduled to be related to their role in ERP. This type of event is coordinated through daily Incident Command meetings/conference calls to coordinate pre-event planning activities, restoration activities during the event, and post-event demobilization activities. All affected branches, ROCCs, and SERTs are activated. Communication protocols are activated and conversations with local and Government of Puerto Rico officials are extended before the impact and through the restoration phase.

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Type	Anticipated LUMA Operating Conditions	
Level 2 – Large Activation	Characteristics	- The severity of the damage within a specific region or spreads through the system is such that restoration activities are carried out within a 10-day period once it is safe to begin restoration activities. - Typically, 25% to 50% (350,000 to 700,000) customer outages at peak. - Typically, >25,000 outage events at the peak. - This type of event is expected to occur between 2 and 4 times over a five-year period.
	Response Organization	- System-wide incident command structure is activated. - All Command and General Staff posts are activated. - The LEOC, all ROCCs, and SERTS are operating. - Liaisons are activated. Staging areas may be needed to support crews and external resources.
	Resource Activation	- This response likely requires external assistance from contractors or mutual assistance from other utilities outside the region. - Additional restoration support functions will be established at the branch and divisional level of the LER, as instructed by the Section Chiefs, and approved by the IC. - The system's emergency restoration teams are activated in the most severely affected areas at the discretion of the chief of the Operations and Planning Section and are approved by the IC. - The LUMA PREMB Interagency Coordinator can be activated depending on the level of state coordination required.
	Communication Coordination	- Federal resources coordination is likely to be required. - A written IAP is required for each operational period. - Pre-event stage reporting is required. - Pre-event outreach to municipalities, elected officials, and regulators. - Emergency stage reporting is required. - Restoration stage reporting is required. - Demobilization stage reporting is required. - An After-Action Review is required. - Post-event meetings will be held with the most severely affected communities.

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Table 6: High Alert Event Characteristics.

Type	Anticipated LUMA Operating Conditions	
Type 3 – High Alert Event	Viewpoint	A Type 3 event represents the largest range of uncertainty due to the severity of the event being forecast (Tropical Depression/Storm) but with low to medium confidence levels for the degree of impact and geographic area that is threatened. This type of event historically resulted in significant damage to the districts or moderate damage to the region(s). The approach is to prepare so that several regions will potentially be affected by the activation of the ICS structure and the opening of one or more ROCCs. Employees will be assigned shifts and scheduled according to the threat, then moved to the areas with the least impact to the areas that received the most damage. This type of event is coordinated through daily Incident Command meetings/conference calls to coordinate pre-event planning activities, restoration activities during the event, and post- event demobilization activities. Communication protocols are activated, and conversations with local and state officials are extended before impact and through the restoration phase.
	Characteristics	- The severity of the damage within a specific district, region, or region is such that restoration activities are, in most cases, carried out within 48-72 hours. - Typically, 10% to 25% (70,000 to 350,000) customer outages at peak. - Typically, >10,000 outage events at the peak. - This type of event tends to occur between 1 and 5 times a year.
Level 3 – Moderate Activation	Response Organization	- The incident command structure is activated, either at the LEOC or at the local LUMA operational level (with one or more ROCCs). - Additional ROCCs can be activated to match the changing complexity of the event. - Additional restoration support functions, such as decentralized dispatch, downed cables, and DA, may be established in a branch or division, as instructed by the heads of the P&I or Operations Section and approved by the IC. - The LUMA PREMB Interagency Coordinator can be activated depending on the level of state coordination required. - Staging areas may be needed in an area if it has been severely affected and requires a concentrated number of crews and resources.
	Resource Activation	- This response may require external assistance from contractors. - LUMA may require a large increase in various personnel and equipment positions. - Additional staff can be obtained from restoration support functions.
	Communication Coordination	- A written IAP may be required for each operational period. - Pre-event stage reporting is required. - Pre-event outreach to life support clients, municipalities, elected officials, and regulators is carried out as needed. - Restoration stage reporting is required.

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Table 7: Non-Emergency Restoration Event Characteristics.

Type	Anticipated LUMA Operating Conditions	
Type 4 – Heightened Alert Event	Viewpoint	Type 4 events include (but are not limited to) system events that impact one or more districts. Type 4 events may be due to thunderstorms, high winds, frequent or severe lightning, or unanticipated events. In most cases, these events are managed by System Operations with assistance from Field Operations. Control and management of the event remain centralized but may decentralize to one or more ROCCs, depending on the damage. Internal teams are notified, and specific sections may be activated depending on the impact of the event.
	Characteristics	- The damage severity within a specific district or region is such that restoration activities are generally accomplished within a 12- 24-hour period. - The incident is, in most cases, limited to one or two operational periods in the Event Restoration phase. - Typically, 1 to 5% (14,000 to 70,000) customer interruptions at peak. - Typically, >7,000 Outage Events at peak. - This type of event generally occurs less than 5 to 10 times per year.
Level 4 – Partial Activation	Response Organization	- The incident command structure is activated, either at the LEOC or at the local LUMA operational level (with one or more ROCCs). - Additional ROCCs can be activated to match the changing complexity of the event.
	Resource Activation	- Restoration is generally accomplished with local resources. Possibly with the help of other resources that have been redistributed from unimpacted regions. 2-50 personnel may be deployed to the LEOC or ROCCs that have been activated at the discretion of the P&I or Operations Section Chiefs and approved by the IC to perform other functions.
	Communication Coordination	- No written IAP is required. - The Operations department may hold briefings or conference calls to ensure that the complexity of the event is fully communicated to management and that response personnel receive the appropriate level of support required for the event.

Table 8: Normal Operations characteristics.

Type	Anticipated LUMA Operating Conditions	
Type/Level 5 – Normal Operations	Viewpoint	Type 5 events represent normal operations and are managed by the System Operations and Dispatch Organizations. For small outages, Dispatch will send designated problem resources to repair the outage. If, upon arrival, it is determined that additional resources are needed, a supervisor is assigned, and additional line crews from the field operations organization will be secured.

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Type	Anticipated LUMA Operating Conditions	
	Characteristics	- System activity is normal. - Incidents are contained within the first operational period and last less than 12 hours after resources arrive on the scene. - Typically, <2.5% (35,000) peak client outages. - Typically, <2,500 outage events at the peak. - Normal daily internal team assignments.
	Response Organization	- Incident command structure is not activated. - LEOC, ROCCs, and SERTs are not activated.
	Resource Activation	Response to outages is coordinated with local scheduled and on-call staff.
	Communication Coordination	No written IAP is required.

Table Notes:

- Type 1, 2, and 3 events are “Emergency Events”. Types 4 and 5 are restoration events managed as normal operations unless escalation occurs.
- Activation Levels may not necessarily be tied to the Event Type. For example, LUMA can use Activation Level 2 to respond to a Type 3 Event if the characteristics of the event dictate a larger activation is required.
- The expected percentage of customers without service is based on the peak during the event period.
- “Outage Events” equates to outage events tracked and entered in the OMS. Some reported damage to the electrical infrastructure that requires repair may not cause an outage but may need to be addressed, such as a low wire, tree limb on a conductor, or damaged equipment.
- For all Event Types, evaluation and estimations of needed crews and resources are a result of several factors, including but not limited to:
 - The anticipated circumstances of the emergency condition(s).
 - The anticipated geographic impact of the emergency condition(s).
 - The level of availability of external or mutual aid resources.

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- Travel distance or other logistical considerations that increase or diminish the ability of external or mutual aid resources to assist effectively in the restoration effort.

4.4 Restoration Priority Guidelines

LUMA strives to restore power to all customers in the safest and most timely manner possible. In support, LUMA has established restoration priorities, both normal and emergency operations, which provide the most efficient approach to restoring electrical outages.

All outages are prioritized using a variety of factors including, but not limited to, the following:

- Critical Community Lifelines
- Customer Type
- Number of Affected Customers
- Outages Involving Safety Conditions
- Make Safe Protocols

4.4.1 Downed Wires

The safety of the public is a primary concern of LUMA, and the elimination of hazards takes precedence. The objectives of LUMA's downed wire protocols include heightened tracking of downed wire incidents, accurate reporting of the response time to downed wire locations, and full documentation of the actions taken.

Response requires trained and qualified personnel to investigate reports of downed wires and conduct repairs. Incidents are created within the OMS system with one of the following conditions identified:

- Downed wires - pole-to-pole or downed wires - pole-to-building
- Downed wires and burning
- Sparking wires

Response to downed wires for performing the initial investigation and clearing the hazard is under the direction of the Operations Section. The DA Strike Teams assist Operations with the prioritization and identification of teams for assignment. Dispatchers determine the appropriate resources assigned to both evaluate and guard downed wires or make the incident safe and work with the Logistics Section regarding those resources.

When assigning and responding to downed wire reports, the LUMA downed wires' priority and severity levels are utilized as a guideline (Tables 9 and 10). Non-outage emergency jobs during restoration activations include downed wires, burning/sparking wires, pole damage, and miscellaneous emergency calls.

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Table 9: Priority Levels of Downed Wires.

Priority Level	Description of Downed Wires
1	Downed wire reports, where it is indicated that the wire is burning, arcing/sparking, or an immediate hazard, or energized primary or secondary downed wires in heavy pedestrian areas such as communities, schools, etc.
2	Non-service downed wire incidents where fire departments, police departments, or other municipal agencies are standing by on the downed wire location or have been reported by municipal officials.
3*	Report of electric downed wire from an emergency organization: - Reported to be affecting traffic flow on a major public highway. - Reported to be blocking/near a pedestrian walkway or driveway. - Reported to be the primary conductor. - Reported to be the secondary conductor.
4	Report of electric downed wire from other sources: - The primary conductor is indicated. - The secondary conductor is indicated.
5	Report of downed wire where the type of wire is not indicated, and it appears the wire is not likely an electric conductor.
* Priority 3 includes reports from members of the 911 call center, police, fire, Emergency Operations Center (EOC) personnel, and emergency managers.	

DA or repair personnel are then dispatched from the region or district area to assess or safeguard downed wire incidents, in priority order. Upon arrival at the location of a downed wire report, and initial assessment of the situation, the severity is determined. If necessary, the responder either:

- Makes the situation safe, so that the wire is not a risk to the public in the area.
- Stands by at the location until relieved or until the situation is made safe by a qualified crew.

Notification of a downed wire by a 911 agency that involves a hazard, such as a fire or situation where a downed wire traps individuals, results in the immediate dispatch of an Overhead Line Crew to the incident, when environmental conditions permit.

The remaining downed wire reports are assigned to DA or repair personnel, according to the downed wire priority, as referenced below (highest to lowest). DA or repair personnel specifically dispatched to safeguard downed wire situations will respond to the location of the downed wire. After assessing the situation, the severity is determined based on the following guidelines (highest to lowest).

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Table 10: Severity of Downed Wires.

Severity Level	Description of Downed Wires
1	Downed wire conductor that poses a high risk to public safety, due to its location on a road or pedestrian-accessible area. These situations require DA or repair personnel to remain on-site and guard the wire until they can be relieved by a Wire Watcher or after a qualified employee or contractor has made the wire safe.
2	Downed wire is a primary conductor but is not on a main road or other easily accessible location. These situations also require DA or repair personnel to remain on-site until relieved by a Wire Watcher, or the conductor can be verified and de-energized by a qualified employee or contractor. Once the wire is known to be de-energized, the DA or repair personnel barricade or tape the area and then can move on to their next location.
3	Downed wire is a secondary conductor. DA or repair personnel attempt to notify nearby customers and barricade/tape off the area to clearly distinguish the hazardous area. If the wire is either an open wire secondary or triplex service cable that has an exposed end (wire is broken), DA or repair personnel remain on-site until relieved by a Wire Watcher or a qualified employee or contractor who has verified that the wire is not energized.
4	Downed wire is not an electric conductor and is not in contact with an electrical conductor, but is instead a phone, cable, or other communications property. If the situation is safe, DA or repair personnel inform their coordinator of this and move on to the next order. Their coordinator may then provide this information to the appropriate company or liaison for communication with the responsible company.

Once the joint reporting and response process is established, LUMA responds to all reported downed wires and takes appropriate action within a reasonable time in accordance with the LUMA Major Outage Event Metrics found in Appendix A, (per the event categorization, see Table 11) while working in conjunction with local authorities after a Major Outage Event. Reasonable times are determined by the duration of service restoration. Table 11 aligns the event classification type to the expected duration of the response.

Table 11: Reasonable Time for Response to Downed Wires.

Downed Wire Reasonable Time		
Event Type	Duration of Service Restoration	Reasonable Response Time
Type 3 – High Alert	1 to 5 days	Up to 18 hours
Type 2 – Emergency Conditions	5 to 10 days	Up to 36 hours
Type 1 – Catastrophic	Greater than 10 days	Up to 60 hours

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4.4.2 Road Closure Priorities

LUMA recognizes the importance of clearing emergency evacuation routes and main thoroughfares and understands the key role they play in helping to make areas safe to clear by de-energizing or removing downed electrical wires that may be blocking roads or entangled in downed trees or roadway debris.

Once it is safe to commence the restoration process, LUMA deploys trained personnel comprised of trained high voltage line workers that have the proper skill sets to cut clear, or de-energize/ground downed wires. By completing this process, transportation corridors become safely possible.

Where possible, a restoration crew will make the location safe. If required, a wire guard representative is dispatched to the location to await SERTs. Restoration priorities are identified within the Restoration Priority Guideline, Table 12.

Table 12: Priority of Road Closures.

Priority Level	Description of Downed Wires
1	Local roads and emergency service roads.
2	Regional roads and critical municipal identified locations.
3	Report of electric downed wire from an emergency organization: - Reported to be affecting traffic flow. - Reported to be blocking/near a pedestrian walkway or driveway.
4	Report of RC from other sources where a downed wire may be the cause or ancillary to the primary cause of the RC.
5	Report of RC where the type of wire is not indicated, and it appears the wire is not likely an electric conductor.

4.4.3 Critical Facilities

Critical Facilities, identified as Level 1 facilities, provide services that are critical to the health and safety of the public and are tied to at least one of the seven critical Community Lifelines.

LUMA also places additional emphasis on critical Community Lifeline facilities and other vital service locations. Critical facility customers, first responder organizations, and other vital sites, such as hospitals, evacuation centers, and water treatment plants, are assigned the highest level of importance (as shown in Table 13).

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Table 13: Critical Facilities by Level.

Critical Facility Levels	
Critical Facility Level 1	These facilities provide services critical to public health and safety (Critical Community Lifelines): 1) Hospitals and emergency medical facilities 2) Emergency shelters, cooling centers, and rescue facilities 3) Emergency Operations Centers (LUMA and Municipal) 4) Water pumping stations and wastewater treatment plants 5) Fire, police, and paramedics. 6) Critical utility and communications facilities 7) Fuel transfer and fuel loading facilities (ports) 8) Mass transit (tunnels, electric drawbridges, ferry terminals, major rail facilities/rectifier stations) 9) Airports 10) Military bases 11) Critical flood control structures
Critical Facility Level 2	These facilities provide significant public services and may include some of the facility types described in Level 1 depending on the event type, but are considered to some extent less critical by government agencies: 1) Nursing homes and dialysis centers 2) Facilities to support other critical government functions. 3) Prisons and correctional facilities 4) Communications (radio, TV, etc.)
Critical Facility Level 3	These facilities provide some public services and may include some of the same types of facilities described in Level 2 depending on the event type, but are considered to some extent less critical by government agencies: 1) Event-specific concerns 2) High-rise residential buildings 3) Customers providing key products and services (food warehouse) 4) Managed accounts, large employers, and other key customers 5) Other government buildings, schools, and colleges

4.5 Restoration Strategy

4.5.1 Overview

The restoration strategy begins with the prioritized outages identified by the DA teams and the OMS, when available, or through the Energy Management System (EMS). The restoration strategy takes into consideration outage information and identifies and compares that data to restoration protocols. SERTs

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must address emergency and life-threatening conditions, such as public safety hazards or downed wires reported by first responders, before any restorations begin.

Listed below and shown in Figure 3 is the prioritization of restoring power.

Figure 3: Prioritization of Restoring Power.



- 1) Restore critical power assets – generation, micro-grids, and mini-grids.
- 2) Repair key transmission lines – these lines transmit energy from generating stations to key substations.
- 3) Restore substations – energy can be distributed to the distribution network throughout communities.
- 4) Restore Community Lifelines – Hospitals, emergency shelters, water systems, critical communication towers, ports, fire and police stations, and others.
- 5) Restore large service areas – return service to the largest number of customers in the least amount of time. Services lines to neighborhoods, industries, and businesses are restored systematically.
- 6) Restore individual homes.

4.5.2 Mitigation Strategy

LUMA understands the importance of pre-planning and its correlation to a timely and effective restoration response. LUMA undertakes a variety of initiatives to prepare its employees, infrastructure, emergency response partners, and the communities it serves. These initiatives include community awareness, training programs, employee training, drills, exercises, and system hardening projects in accordance with the LUMA Major Outage Metrics in Appendix A. These pre-storm actions assist LUMA in responding to outages more effectively, while ensuring that customers, employees, and key stakeholder groups are better informed and prepared when disaster strikes.

4.5.3 Community Outreach

LUMA's storm preparation initiatives focus on educating the community it serves on the importance of preparedness and safety. Public education is vital to an efficient and safe restoration effort, and LUMA strives to inform its customers of what to expect before, during, and after large-scale events. Information is shared with the public through multimedia platforms such as LUMA's website, videos, social media, and its participation in community seminars, briefings, and exercises. LUMA believes that customer education is a year-round process.

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First Responders

First responders play an important role in an emergency or large-scale outage. First-response organizations aid in protecting the public from unsafe conditions such as downed powerlines or vehicle collisions. LUMA continues to build a partnership regarding preparedness and planning initiatives and supports them when an event occurs.

Governmental Organizations

Governments are defined as government officials, municipal & state emergency management organizations, and federal and local government agencies, including FEMA, the Department of Energy, and the PREB, among others. LUMA continues to strengthen relationships with these critical stakeholders through information sharing and collaboration throughout the year.

LUMA practices its emergency preparedness and response plan through tabletop exercises and other relevant events. Companywide exercises center on planning and response activities during a large-scale restoration event and promote open communication and collaboration between all affected and participating entities.

This alignment helps to ensure a clear and coordinated response when an emergency occurs and promotes dialogue and continuous improvement between organizations.

Energy Stakeholders

LUMA works diligently to continuously refine and communicate ETRs as additional information becomes available throughout the restoration process. LUMA's Liaison Officer (LNO), an integral member of the LEOC Command Staff, assumes primary responsibility for disseminating vital information to energy stakeholders. This process is detailed in Annex G: Communication Guidelines.

4.5.4 Make Safe Protocols

Clearing emergency evacuation routes and main transportation corridors is an important part of the response to an emergency. Qualified electrical field crews play a significant role by de-energizing or removing downed electrical wires blocking roads or entangling downed trees or roadway debris.

During large-scale events, the number of internal resources that are trained and readily available is limited, and the demand could greatly exceed available resources. Based on needs and available resources, LUMA reassigns available internal resources and utilizes qualified external resources to ensure “make safe” actions are taken.

5.0 Estimated Time of Restoration Guidelines

Providing ETRs is a top priority of LUMA's overall restoration process in accordance with the Major Outage Event Metrics in Appendix A. LUMA aims to serve its customers, local officials, and emergency support organizations by providing ETRs in a timely manner.

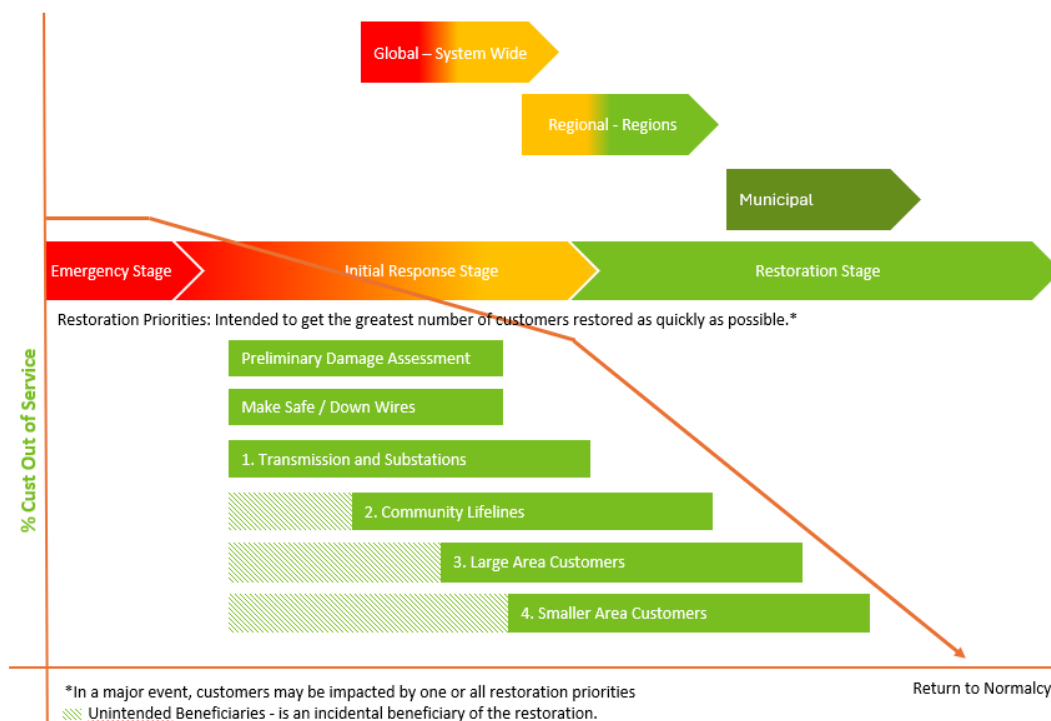
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The timing, magnitude, and impact of an event factors into ETR times. Therefore, LUMA establishes a baseline of projections to assist in determining operational goals and timelines. An ETR provides an estimate of when service is restored to a customer, location, or work assignment based on the on-site assessment and historical data. Specific priorities and tactical objectives are guided by the IC and General Staff based on available resources and response priorities. See Figure 4 for the conceptual process of determining ETRs.

ETRs are a predictor of outage lengths and assist in determining the operational resources and actions required. Due to every event's unique nature, subjective analysis as well as experience during similar events, are required to estimate resources, material, and equipment requirements based on weather or other known hazard conditions.

Figure 4: Conceptual Process of Determining ETRs.



5.1 ETR Definitions

ETRs are segregated into four types: Global, Regional, Local, and Individual Customer. These classification levels allow LUMA to provide its customers with more accurate restoration estimates, based on the current and anticipated conditions as well as the corresponding damage assessment and restoration efforts. ETR information may be updated as additional data and information is obtained during restoration. LUMA strives to improve the accuracy of ETRs by continuously working on the integration of people, processes, and technology from pre-event, through initial response and restoration stages.

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- Global ETRs – Information is determined at a system-wide level, initially communicated as the point in time when 90% of customers are restored.
- Regional ETRs – Information is determined at a regional level, initially communicated as the point in time when 90% of customers within a specific region are restored.
- Municipal ETRs – Information is determined at a local level, in most cases, for specific assets, including transmission lines, substations, and distribution feeders.
- Individual Customer ETRs – Information is determined at a customer level. However, this capability is currently unavailable until Advanced Metering Infrastructure (AMI) fielding and installation is completed in FY2027-2028.

These protocols are considered minimum requirements necessary to ensure customers are adequately informed. During restoration, LUMA refines ETRs and will update customer representatives, Interactive Voice Response (IVR) systems, and websites as the situation changes. LUMA provides restoration information (including customer outage counts and ETRs, if available) to media outlets and public officials in affected areas during Major Outage Events. Additionally, LUMA issues at least one press release daily for all Major Outage Events with an expected restoration stage longer than 48 hours. For widespread events, company-wide outage statistics may also be provided as part of the initial notification, if available.

During an emergency event, the ability to reach a representative for non-outage or non-emergency requests may be suspended temporarily, and the automated system may not be available for account information. ETR information is communicated through multimedia platforms and the IVR in accordance with the LUMA Major Outage Metrics in Appendix A.

The anticipated actions related to the assessment and identification of ETRs are detailed in Tables 14 and 15.

Events with duration of service restoration expected to last up to 96 hours.

Table 14: Service Restoration Activities.

Within the first 6 hours of the start of the Initial Response stage:

- Notify regulatory authorities of the start of the initial response stage and the expectation that the initial response stage will last 48 hours or less. The notification to regulatory authorities will also state what LUMA has defined as the approximate start of the restoration stage. For events expected to last 48 hours or less, the notification may be via IVR.

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- Provide available information to the public via customer representatives, IVR systems, and websites.
- In certain situations (e.g., nighttime events), only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform regulatory authorities of the delay in determining the Initial Response stage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime storm, the determination of whether the Initial Response will be less than 48 hours will be communicated as soon as possible, but no later than noon the following day.

Within the first 12 hours of the start of the Initial Response stage:

- Provide regulatory authorities with an approximate global ETR and any available regional ETRs, where known.
- Prepare a statement for the press that includes known ETRs for the next upcoming news cycle and communicate with relevant municipal and government officials.

Within the first 18 hours of the start of the Initial Response stage:

- Provide approximate ETRs for each region, where known, and affected, and make them available to the public via customer representatives, IVR systems, and websites.

Within the first 24 hours of the start of the Initial Response stage:

- Consider issuing a press release for the upcoming news cycle based on conditions.

Within the first 6 hours of the start of the Restoration Stage:

- Notify regulatory authorities of the start of the restoration stage.
- Provide available information to the public via customer representatives, IVR systems, and websites.

Within the first 24 hours of the start of the Restoration Stage:

- Establish regional and municipal ETRs for areas affected.
- Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than five days.
- Make ETR information available to the public via customer representatives, IVR systems, and websites.

Reporting requirements during events with duration of service restoration expected to last up to 96 hours:

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- Provide notification when the initial response stage starts, the expected start of the restoration stage, and information updates four times daily to regulatory authorities, which shall continue until otherwise directed by staff.
- Notify the start of the Restoration Stage, and provide information updated four times daily to regulatory authorities, which shall continue unless otherwise directed by staff.
- Provide ETRs.
- Notify regulatory authorities when all storm-related interruptions have been restored.

Events with duration of service restoration expected to last more than 96 hours.

Table 15: Service Restoration Activities.

Within the first 6 hours of the start of the Initial Response stage:
• Indicate that it will be a multi-day event (i.e., greater than 48 hours). The notification shall be made to regulatory authorities and will state the start of the initial response stage and when LUMA anticipates the start of the restoration stage. • Provide a public statement indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites. • In certain situations (e.g., nighttime events), only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform regulatory authorities of the delay in determining the Initial Response stage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime storm, the determination of whether the Initial Response will be greater than 48 hours will be communicated as soon as possible, but no later than noon the following day.
Within the first 12 hours of the start of the Initial Response stage:
• Prepare a press release for issuance in time for the next upcoming news cycle and communicate with relevant government agencies.
Within the first 18 hours of the start of the Initial Response stage:
• Schedule regular conference call(s) with agencies unless an alternative contact method is more appropriate. The first scheduled conference call might not take place within the first 18 hours but shall be within the first 36 hours.
Within the first 24 hours of the start of the Initial Response stage:
• Notify regulatory authorities of which areas sustained the most damage to the electric system. • Issue a press release(s) for upcoming news cycles with the information described in the previous bullet.
Within the first 36 hours of the start of the Initial Response stage:
• For storms with an expected initial response stage of five days or less, provide regulatory authorities with an approximate global ETR. • Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than five days. • Actively participate in Emergency Support Function (ESF-12) meetings held at PREMB EOC.

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- Make ETR information available to the public via customer representatives, IVR systems, and websites.

Within the first 48 hours of the start of the Initial Response stage:

- For storms with expected restoration stages of five days or more, provide regulatory authorities with an approximate global ETR.
- Establish approximate regional ETRs, where known, for areas expected to be restored within five days, even if the total restoration stage is expected to be over five days.
- Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than five days.
- Make ETR information available to the public via customer representatives, IVR systems, and websites.

Beyond the first 48 hours of the start of the Initial Response stage:

- For storms with expected restoration stages of five days or more, provide regulatory authorities with an approximate global ETR.
- Establish approximate regional ETRs, where known, for areas expected to be restored within five days, even if the total restoration stage is expected to be over five days. Provide ETRs to regulatory authorities.
- Make ETR information available to the public via customer representatives, IVR systems, and websites.

Within the first 6 hours of the start of the Restoration stage:

- Notify regulatory authorities of the start of the restoration stage.
- Provide a public statement indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites.

Within the first 12 hours of the start of the Restoration stage:

- Prepare a press release for issuance in time for the next upcoming news cycle and communicate with relevant government agencies.
- Communicate information such as system damage, outages, restoration status, etc., with affected municipal and elected officials as appropriate.
- Continue post-storm municipal conference call(s) unless an alternative municipal contact method is more appropriate.

Within the first 24 hours of the start of the Restoration stage:

- Provide regulatory agencies and the public with approximate regional and/or municipality ETRs. Update customer representatives, and IVR systems.
- Continue issuing press releases for upcoming news cycles with the information described in the previous bullet.
- Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than ten days.
- Actively participate in ESF-12 meetings held at PREMB EOC.

Within the first 48 hours of the start of the Restoration stage:

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- Provide regulatory agencies and the public with any additional and/or updated regional or municipality ETRs. Update customer representatives, and IVR systems.

Beyond the first 48 hours of the start of the Restoration stage:

- Provide regulatory agencies and the public with any additional and/or updated regional or municipality ETRs. Update customer representatives, and IVR systems.

Reporting requirements during events with duration of service restoration expected to last more than 96 hours:

- Provide notification when the initial response stage starts, the expected start of the restoration stage, and information updates four times daily to regulatory authorities, which shall continue until otherwise directed by staff.
- Notify the start of the Restoration Stage and provide restoration information updates four (4) times daily to regulatory authorities, which shall continue until otherwise directed by staff.
- Provide ETRs.
- Notify when all outage event related interruptions have been restored.

6.0 Organization

This section outlines the key functions of the various components and positions of the Storm Restoration organizational structure. An orderly and consistent flow of information between Operations, Communications, Logistics, and associated support organizations is necessary in times of emergency events. Organizational charts indicating lines of authority and the interrelation between organizational groups are included in Appendix A.

6.1 LUMA Leadership

Prior to and during major storm events, LUMA's senior leadership maintains an ongoing open dialogue to discuss and share intelligence regarding an impending emergency event that may affect the electric system. This proactive dialogue ensures the most complete and timely "situational awareness" between leadership teams. It provides a platform to facilitate discussions regarding the potential sharing of personnel resources and other support functions between entities.

This coordinated approach is also important to the overall restoration response from a communications perspective, as it provides the mechanism for consistent messaging employees, customers, and other external stakeholders. With the threat of a major storm or another system emergency, LUMA's leadership team, through the Crisis Management Committee (CMC), activates LUMA's Emergency Roster (LER).

6.2 LUMA Emergency Roster

An overview of LUMA's LER utilized during restoration activities can be found in the ERP - Base Plan, Appendix A. Please refer to LUMA's ERP – Base Plan Appendix B for a list of responsibilities by role. LUMA continues to update the list when required due to personnel changes or updates.

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6.3 Direction, Control, and Coordination

Emergency response procedures parallel normal operational procedures to minimize the need for specialized training or work practices. This Annex provides the framework for the systematic response of resources when emergencies arise. It defines a set of processes and protocols for determining the appropriate level of response during major emergencies for:

- Restoration of electric service.
- Emergency response progress notification of applicable government agencies, customers, the public, and employees.
- Response to official requests for specific incidents, events, or actions.
- Response to natural or man-made events that involve LUMA's facilities.

For additional information related to direction, control, and coordination, refer to the ERP – Base Plan, Section 8.

7.0 Communications

LUMA strives to provide timely, accurate, and consistent communications prior to and during a Major Outage Event as details become available. Emergency communications may include alerts and warnings from the National Weather Service (NWS), or other verified emergency notifications of events that may affect the electric service. Communications may include information regarding evacuation, curfews, other actions for protective measures, LUMA response and restoration status, available assistance, and other matters that impact LUMA's response and recovery.

The Public Information Officer (PIO) is responsible for communicating necessary and critical information externally. LUMA will communicate information externally through a variety of methods including, but not limited to:

- LUMA's website and customer app, as available
- News Media
- Social messaging, including the use of Twitter, Facebook, and Instagram, among others.
- Situational Reports to Local, Municipal, and Government of Puerto Rico agencies
- Incorporation of Amateur Radio Operators (as needed)
- Joint Information Center (JIC)

Public Service Announcements (PSAs) are distributed to the following stakeholders:

- Customer Experience Teams
- Employees
- Media outlets
- Elected Officials
- Local Municipal Officials
- Regulatory and State Governmental Agencies

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7.1 PSAs

The IC must approve the final draft of all PSAs prior to their dissemination by the PIO or other designers. Public statements may include the following confirmed information:

- Number of customers affected
- Affected regions
- Numbers of crews
- ETR
- Cause of the outage/event
- Warnings regarding hazardous conditions and public safety information
- Description of emergency response actions already taken
- Customer Service phone numbers for customers to report outages or damage, a Company website link to report outages and access restoration information, and links to relevant social media platforms.

7.2 Media Communications

Prior to and during an emergency event, a PIO media team member is available to media outlets for information regarding company activities in addition to regularly scheduled PSAs. In larger, more extensive emergencies, it may be desirable to schedule news media briefings and have an appointed spokesperson available for press conferences.

The spokesperson serves as the official representative of the company during media briefings and press conferences, ensuring that all external communications are aligned with the LUMA's messaging strategy. This role includes delivering key updates, addressing media inquiries, and reinforcing the company's preparedness and response efforts. The spokesperson is prepped up by the PIO team with the latest situational updates, key messages, anticipated questions, and approved talking points before any public statements or media engagements.

The PIO team is responsible for communicating with a full range of broadcast, news, and online and print media outlets, ensuring timely and clear communication of all vital messaging. The PIO team formulates press releases, coordinates appropriate interviews, and provides periodic status updates throughout an event and afterward. The spokesperson works closely with the PIO team to ensure that all public statements and responses reflect accurate and up-to-date information.

In addition, the team maintains focus on storm-related threats, including flooding, and shares all available safety and restoration information, recommendations for preparing for flooding or evacuation, safety precautions, and suggested steps to arrange for re-energization (if a home or area has been de-energized due to flooding or other conditions).

The goals are to:

- Provide accurate, timely information to the media, customers, local elected officials, local municipal officials, and employees through coordinated messaging between the PIO team and the spokesperson.

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- Demonstrate preparedness through proactive and diligent communication led by the spokesperson during media engagements.

7.3 Digital Communications

Prior to a known event, the PIO or a designated digital communications team member review and updates the Company's website content. During the event, the PIO or designated digital communications team member posts PSAs on the website, and that content is current.

If available, the outage map displays outage and restoration information geographically and in tabular format. It is provided by region or town, including customers served and customers impacted on the tabular side. Geographically, customers also see outage information and an estimated outage location. If possible, regional ETRs are then shared via the website and social media channels.

7.4 Employee Communications

Internal communications are prepared and distributed before, during, and after an event by the PIO team through multimedia platforms to employees. Information and updates, expectations for their support, and the nature, scope, and status of LUMA's restoration response are included. Messages include information consistent with that released to the public, including safety tips regarding specific types of dangers so employees may prepare their families for possible demanding assignments and extended shifts that come with a severe storm or other emergency.

Daily and overnight message notifications and postings are examples of typical communications and are sent by the PIO employee communications team. All information released is approved by the PIO and the IC.

Topics can include:

- Weather updates
- Safety information
- Company preparations and activities
- Restoration status
- PSAs
- Customer feedback
- Link to event photos and videography
- Links to outage center

7.5 Regulatory Officials

LUMA, PREB & P3A LNO communicates with regulatory officials prior to and during an emergency event using email, conference calls, and individual phone calls or other means, as necessary.

Once a predicted emergency event is forecasted, the Reporting Unit prepares Emergency Event Reports, as required by LUMA Major Outage Metrics, and submits them to the appropriate agencies as required until outages occur. For additional information on reporting, refer to the ERP – Base Plan, Section 11.

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7.6 Government Officials

During events requiring the activation of the ROCCs, LUMA's Customer Experience & Key Account Specialist, through the Key Account Team Lead at the LEOC, is tasked with providing staffing support. Regional Key Accounts Representatives are strategically positioned within the ROCCs to facilitate seamless communication among the LEOC, ROCCs, partner agencies, and municipal officials. This collaboration occurs both prior to, during, and after an event, as well as throughout the restoration process, adhering to the guidelines outlined in the LUMA Major Outage Metrics detailed in Appendix A.

Municipalities impacted by emergencies help prioritize the restoration of electric facilities and provide access to LUMA facilities through municipal support services. During emergencies, each Regional Key Accounts representative submits daily reports to municipal officials, including emergency managers or their representatives, containing detailed information on emergency conditions and restoration progress for every affected municipality and neighborhood.

The following communications are carried out by the Regional Key Accounts Representative to satisfy the regulatory reporting requirements:

- Scheduled conference calls with municipal officials, including emergency managers.
- Community liaison communications (telephonic, electronic, or in-person) with municipal officials, including emergency managers.
- Communicate with key account customers.
- Provision of emergency conditions and restoration information, including but not limited to:
 - Outage and restoration information.
 - Priority down wire locations.
 - Critical Facilities impacted by the emergency event, through a community website portal that may be accessed by municipal emergency managers.

8.0 Demobilization

Demobilization is the orderly, safe, and efficient return of an incident resource to its original location or status. The IC is responsible for initiating the de-escalation/demobilization process. Demobilization planning for de-escalation/demobilization is an ongoing process that begins as soon as the response begins to facilitate accountability and ensure efficient resource management.

Tracking resource requirements and releasing those resources is no longer required to support the response is essential for accountability and managing control. This assists in reducing the displacement of resources, reducing operating costs, and ensuring resources are available for other activities and assignments as needed.

The P&I Section Chief develops demobilization plans and ensures they are implemented as instructed by the IC.

The LER may be fully demobilized when:

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- All storm-related jobs are assigned.
- Centralized Dispatch is managing events.
- All non-regional crews are released.

9.0 Training and Exercises

Successful response to emergency events requires a Company-wide commitment to preparedness integrated into LUMA's daily operations, not just during incidents. Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, Emergency Preparedness Department staff, and PREMB personnel; and maintaining updated contact information of personnel and organizations that may assist in LUMA's restoration efforts. Every employee is expected to participate in preparedness activities throughout the year.

The Emergency Preparedness Department maintains the ERP-related training database and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities and support the safe and reasonably prompt completion of all required actions during ERP activations.

The LUMA exercise program is consistent with the Homeland Security Exercise Evaluation Program (HSEEP) developed by the FEMA. The HSEEP methodology is defined and implemented using seven exercise types, broken into the categories of discussion-based exercises and operations-based exercises. LUMA employs a variety of exercise types based on exercise goals and objectives. The goal of conducting exercises is to enhance training, improve familiarization, evaluate, or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

10.0 Annex Development and Maintenance

This Annex is a living document. Development and maintenance of this Annex are in conjunction with the LUMA ERP. Proposed changes should be sent to the Emergency Preparedness Department of Operations for approval and inclusion.

Please reference the LUMA ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

11.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 2) **Critical Facilities** – Identified as Level 1, 2, or 3 facilities that provide services that are critical to the health and safety of the public and are tied to at least one of the seven critical Community Lifelines. Examples include hospitals, fire/police stations, restoration staging areas, and communications facilities.
- 3) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of disasters.
- 4) **Demobilization** – The ongoing process of disengaging response resources as incident objectives

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are met and returning them to their normal function.

- 5) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
- 6) **Emergency or Emergency Event** – Any outage event, as per the T&D Operations Management Agreement (OMA); declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LUMA Emergency Roster.
- 7) **Emergency Operations Center** – The physical locations at which coordination of information and resources to support incident management activities occurs.
- 8) **Emergency Response Plan** – A comprehensive plan that provides the concept of operations for response to emergency situations and other extraordinary events consistently and effectively.
- 9) **Geographic Information Systems** – A framework used to map the distribution system with land based information.
- 10) **Hurrevac (HVX)**– National Hurricane Program's hurricane decision support tool used to assist in decision-making and responding to tropical cyclone threats and evacuations.
- 11) **Joint Information Center** – A central point of contact for new media and interest parties to coordinate incident information activities.
- 12) **Key Account Customers** – Large industrial customers who may have their own electrical system to which LUMA supplies power.

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Appendix A: Major Outage Event Metrics

Table 16: Appendix A: Summary of Major Outage Performance Metrics.

Metrics	Location	Comments	Data Owner	Task
1. Preparation Phase (Pre- Event Stage as introduced in section 4, Emergency Event Stages).				
Completion of each step counts separately:				
1.1 Event-level categorization is based on weather forecasts, system resiliency assessment and available resources.	Base Plan: Section 6.3. Annex A: Section 4	Upon Activation, Event Type and Activation Level is determined and documented.	Incident Commander; Deputy Incident Commander; Planning & Intelligence Section Chief	Mark as complete each day that the Event Type and Activation Level is updated (beginning when LUMA's Emergency Operations Center [LEOC] is activated). Based on this categorization, determine the duration of service restoration and include that cell C9.
1.2 Press releases issued/text messages/emails sent.	Base Plan: Section 10.1, Annex A: Section 7		Public Information Officer (PIO)	Mark completed every day that communication was made.
1.3 Municipal conference calls are held.	Base Plan: Section 10.3 Annex A: Section 7	Interagency/municipal conference calls were held. Participating in agency interactions through the activated PREMB zones EOCs, and KA representatives embedded in the ROCCs.	Customer Experience and Key Accounts (KA) Specialist; Key Accounts (KA) Team Lead	Mark as complete the day of each interaction with municipalities.
1.4 Critical & essential customers alerted — based on an established list with current information.	Base Plan: Section 10	Critical and essential customers refer to the Community Lifeline Customers.	Customer Experience and Key Accounts (KA) Specialist; Key Accounts (KA) Team Lead	Mark as complete by the day the list has been established.

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Metrics	Location	Comments	Data Owner	Task
1.5 Point of contact for critical facilities alerted — based on an established list with current information.	Contact lists are stored separately	Critical Facilities are facilities that provide services to public health and safety.	Customer Experience and Key Accounts (KA) Specialist; Key Accounts (KA) Team Lead	
1.6 Company compliance with the training program as specified in the Emergency Response Plan.	Base Plan: Section 12.3	Evidence of ongoing training, including	N/A	
1.7 Participation in all pre- event mutual assistance group calls.	Base Plan: Section 7.3 Annex A: Section 7		Incident Commander; Logistics Section Chief; Logistics Section Deputy	
1.8 Verify materials/stockpiles level based on the forecast. If materials are not on hand, corrective steps are taken in the shortest reasonable time to correct the situation.	Base Plan: Section 8.1 Annex A: Section 4		Logistics Section Chief & Deputy; Planning & Intelligence (P&I) Section Chief	
2. Downed Wires				
Once the joint reporting and response process is established, LUMA will respond to all reported downed wires and take appropriate action within a reasonable time (per the event categorization), working in conjunction with local authorities after a Major Outage Event. Reported means that the situation is tracked in the Customer Information System (CIS) by the official contacting LUMA call centers or reported via the Municipal EOC through LUMA's Municipal Emergency Operations Center (OMME) Regional Interagency Coordinators	Base Plan: Section 6.6 Annex A: Section 4	A reporting and response process on how these are managed needs to be put in place jointly with municipal public officials. Fire and Police training on how to handle downed wires will be provided as requested. Reported means that the situation is tracked in the Customer Information System (CIS) by a municipal first responder contacting LUMA call centers directly or reported through a PREMB zone EOC.	Priority Restoration Group Branch Director; ETR Specialist; Damage Assessment Group Branch Director; Damage Assessment Strike Teams	

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Metrics	Location	Comments	Data Owner	Task
(LRIACs) and /or Key Accounts representatives.				
Reasonable Time:				
Duration of Response Service	Restoration Time			
3 to 5 days	18 hours			
5 to 10 days	36 hours			
>10 days	60 hours			
3. Damage Assessment				
After the beginning of the Major Outage Event and when it is safe to do so, LUMA will begin a preliminary damage assessment of the affected area(s) or T&D facilities. The preliminary damage assessment will be completed within a “reasonable time” at the beginning of the Operation Response phase. The preliminary damage assessment will be done primarily with helicopter patrol and very limited specific land patrol to address helicopter assessment questions. Concurrently with the start of the preliminary helicopter assessment, LUMA will begin a more thorough damage assessment.	Annex A: Section 4		Damage Assessment Branch Director	
Reasonable Time:				
Duration of Response Service	Restoration Time			
3 to 5 days	36 hours			
5 to 10 days	72 hours			
> 10 days	120 hours			

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Metrics	Location	Comments	Data Owner	Task
4. Crewing				
If there is no Preparation Phase or it did not last at least three days, this metric does not apply, report "N/A". Three (3) days prior to a forecasted event occurring (when the event allows that much warning time) LUMA will complete damage prediction to determine crew requirements. Based on this damage prediction, the required number of internal LUMA resources and on island contract crews will be determined. LUMA will stage materials, equipment, and personnel at the required location prior to the weather event striking the area (as determined) Within 24 hours after the damage prediction, 50% of indicated internal crews and qualified contract crews will be deployed.	Annex A: Section 4		Operations Section Chief; Planning & Intelligence (P&I) Resources Unit Leader	24 hours after the damage prediction, enter the percentage of indicated internal crews and qualified contact crews are available for response activities. 48 hours after the damage prediction, enter the percentage of indicated internal crews and qualified contact crews are available for response activities. The above two completions will result in the metric satisfaction.
5. Estimated Time of Restoration (ETR) for 90% of Service Outages				
5.1 Publication of regional ETRs in accordance with guidelines.	Annex A: Section 5		ETR Specialist; Situation and Intelligence Unit Leader; LUMA PREB & P3A Liaison Officer (LNO)	Mark as complete on the first day that the ETR is published at a regional level.
5.2 Publication of municipal ETRs in accordance with guidelines.	Annex A: Section 5		ETR Specialist; Situation and Intelligence Unit Leader; LUMA PREB & P3A	Mark as complete on the first day that the ETR is published at a municipal level.

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Metrics	Location	Comments	Data Owner	Task
			Liaison Officer (LNO)	
5.3 A preliminary ETR for 90% service restoration will be made available on the Internet 24 hours after the preliminary damage assessment.	Annex A: Section 5		Public Information Officer (PIO); LUMA PREB & P3A Liaison Officer (LNO)	Mark as either complete or incomplete 24 hours after the preliminary damage assessment depending on whether the ETR is published in pdf on the internet.
5.4 ETRs on 90% service restoration to be made available on IVR and to CSRs by municipality or region.	Annex A: Section 5		Public Information Officer (PIO); LUMA PREB & P3A Liaison Officer (LNO)	Mark as complete when 90% of service restorations have been made available on IVR and CSRs by municipality or region.
5.5 All ETRs are to be updated every 24 hours.	Annex A: Section 5		ETR Specialist; Situation and Intelligence Unit Leader; Public Information Officer (PIO); LUMA PREB & P3A Liaison Officer (LNO)	Mark as complete each day that ALL ETRs are updated. Tip: For published ETRs, are they being updated and communicated? Only respond to this metric if you have answered "Yes" for at least one of the 5.1-5.3 metrics.
6. ETR Accuracy for 90% Service Restoration				
Accuracy for 90% of service outage restoration and published in accordance with ETR requirement time. The ETRs used for this metric will be the ETRs posted after the detailed damage assessment is completed and not based	Annex A: Section 5		ETR Specialist; Situation and Intelligence Unit Leader; LUMA PREB & P3A Liaison Officer (LNO)	Mark as complete on the last day of the Major Outage Event (MOE) only if 90% service was restored on or before the date established for all 90% ETR(s) that were published.

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Metrics	Location	Comments	Data Owner	Task
on the preliminary damage assessment.				
7. Municipality Coordination				
Through the activated PREMB zones of EOCs, the LUMA local Regional Interagency Coordinator will attend all scheduled Situation Report (SITREP) meetings. The coordinator will be the conduit for municipality-specific information and requests. LUMA's Regional Interagency Coordinator will attend all scheduled SITREP meetings at activated PREMB EOCs.	Base Plan: Section 10.3 Annex A: Section 7	Through any activated PREMB EOCs or Municipal EOCs, the LUMA Interagency Coordinator or Regional Key Accounts Representatives will receive updates. To track, the zone PREMB or Municipal EOCs must be activated so that all requests flow through the respective EOCs.	LUMA Key Accounts (KA) Representatives	Mark as complete all of the days that LUMA communicated with municipalities.
8. EOC Coordination PREMB/Federal EOC Coordination				
Through the PREMB and Federal EOCs, the LUMA Liaisons will attend all scheduled meetings. The Liaison will be the conduit for the Incident Command Center (ICC) for information and requests. To track activity, the State and Federal EOCs must be activated and not a request from elected officials.	Base Plan: Section 10.3 Annex A: Section 7	Through the Commonwealth and Federal EOCs, the LUMA Interagency Coordinators and Liaisons will participate in all required scheduled meetings (telephonic, video conference, TEAMS/ZOOM, and chats) and receive updates. To track activity, the Commonwealth and Federal EOCs must be activated. Requests from elected officials outside of EOCs are not included.	Liaison Officer (LNO)	Mark as complete the day that the State and Federal EOCs are activated and all days of interaction.
9. Utility Coordination				
Establish contact points between utilities.	Base Plan: Section 7.2		Liaison Officer (LNO)	Mark as complete on the days of communication with other utilities.

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Metrics	Location	Comments	Data Owner	Task
10. Safety				
Record safety incidents and include them in a safety report per LUMA Health Safety Environment & Quality (HSEQ) standard.	Base Plan: Section		Safety Officer (LNO)	Mark as complete on the last day of the Major Outage Event (MOE) if all safety incidents are recorded internally. If they were not, do not mark as complete.
11. Mutual Assistance				
Three (3) days prior to a forecasted event occurring (when the event allows that much warning time), LUMA will complete a damage prediction to determine the requirements for on and off- island mutual aid/pre- negotiated contracts with other utility service providers. LUMA will activate the required resources and place them on standby until the damage assessment is completed. After the initial damage assessment is completed, the requests for mutual assistance or other utility service provider crews will be made as follows: Within 70 hours, 40% of crews After 120 hours, 80% of committed mutual aid and other utility service provider crews will be requested.	Base Plan: Section 7.3 Annex A: Section 4		Logistics Section Chief; Logistics Section Deputy; Damage Assessment Section	70 hours after the preliminary damage assessment, enter the percentage of crews that were requested. 120 hours after the preliminary damage assessment, the percentage of committed mutual aid and other utility service provider crews requested. The above two completions will result in the metric satisfaction.
12. Call Answer Rates				
	Base Plan: Section 10.2 Annex A:		Customer Experience and	Gather total daily calls received and

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Metrics	Location	Comments	Data Owner	Task
	Section 7		Key Accounts (KA) Specialist	total calls answered. Measured on a daily basis.
13. Web Availability				
	Base Plan: Section 10.2 Annex A: Section 7		Public Information Officer (PIO)	Mark as complete every day that an hourly web update was made or if no new information is available, the website displayed the last time and date of the update.
14. PREB and Administrator (P3A) Reporting				
Information is to be updated every 24 hours.	Base Plan: Section		Reporting Group Branch Director of Planning & Intelligence Section; PREB & P3A Liaison Officer (LNO); Regulatory Reporting Unit Leader	Mark as complete all days that PREB and Administrator Reporting was done in accordance with OMS guideline requirements as established in the ERP.
15. Customer Communications				
	Base Plan: Section 10 Annex A: Section 7		Public Information Officer (PIO); Key Accounts (KA) Team Lead	Mark as complete each day that a press release, TV/Radio Interview, or 2 Social Media posts were done.
16. Outgoing message on a telephone line				
	Base Plan: Section 10.2 Annex A: Section 7		Customer Experience and Key Accounts (KA) Specialist	Mark as complete each day that the IVR messaging was updated.

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Appendix B: Damage Assessments

1.0 Purpose

The purpose of LUMA's Damage Assessment Appendix (Appendix B) within Annex A is to document a structured approach for assessing and documenting damage to the Transmission and Distribution (T&D) System following an emergency or disaster. This appendix provides guidelines for rapidly evaluating infrastructure impacts, ensuring accurate and timely reporting, and supporting resource allocation and federal reimbursement efforts. The damage assessment process enables LUMA to prioritize restoration efforts, coordinate with local, state, and federal agencies, and meet FEMA documentation requirements for disaster recovery funding. This appendix aligns with FEMA's Public Assistance Program and Policy Guide (PAPPG) requirements under 44 CFR part 206 to ensure eligibility for federal reimbursement.

The objectives of Damage Assessments are:

- To enable the safe and rapid restoration of service to our customers
- To accurately catalog the magnitude and extent of the damage so that eligible damage costs can be reimbursed.

2.0 Scope

Appendix B applies to emergency events caused by any hazard or threat that results in, or could result in, a major potential impact on the integrity of the Transmission and Distribution (T&D) System or disruption of electrical service to LUMA customers. Additionally, the Emergency Response Plan (ERP) applies to LUMA personnel and to any staff of LUMA, affiliate company employees, contractors, mutual aid resources, or any other personnel working under the direction or authority of LUMA. Appendix B describes activities beginning from Activation of LEOC to filing of the Damaged Inventory List (DIL) and demobilization of the Damage Assessment Group.

Appendix B applies to Emergency Events Type 3, 2, or 1 as described in the Event classification and LUMA Emergency Operations Center (LEOC) Activation Table, located in ERP- Base Plan, Appendix A. Damage assessments must be initiated as soon as it is safe to do so during the Initial Response Stage, with information flowing from field teams to the LEOC for situational awareness and decision-making.

3.0 Situation and Assumptions

3.1 Situation

Effective damage assessment is critical for LUMA's ability to manage response and recovery operations following a disaster. The accuracy and efficiency of these assessments directly impact restoration priorities and reimbursement eligibility. LUMA's damage assessment process is aligned with the ERP and integrates key stakeholders to ensure comprehensive documentation of system impacts.

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The Damage Assessment response is scalable to be appropriate to the extent of damage to enable safe and rapid recovery. The number of customers affected, and the magnitude of a Major Outage Event will vary, but the operational concept stays the same. The level of recovery resources can be adjusted as needed; the response is scalable to support damage assessment efforts for localized incidents, large-scale disasters, and federally declared emergencies.

LUMA takes an aggressive approach to hardening the T&D System across Puerto Rico to withstand major weather events. Through these efforts, major hurricanes like Maria in 2017 are less impactful to the T&D System, which supplies critical energy to LUMA customers. Due to the configuration of Puerto Rico's T&D grid in relation to the location of the generation, LUMA focuses on hardening key transmission lines to distribute energy to key load centers of high demand. Critical system substation rebuilds are another area of focus. LUMA commits to applying Non-Federal Capital (NFC) and Federal funds including Department of Energy (DOE) and Federal Emergency Management Agency (FEMA) funds to improve system resilience through storm hardening and process and technology improvements. These efforts aim to reduce the size and frequency of service interruptions and the costs to recover from them. This involves a multi-faceted, multi-year approach, including:

- Restoring and hardening key transmission lines that distribute energy to key load centers of high demand.
- Hardening priority distribution feeder segments
- Initially targeting high-risk vegetation (excessive overhang or trees near lines that appear susceptible to falling during a major event) for proactive “hot spotting” and performing vegetation clearing across PREPA rights of way of incompatible species and maintaining with a comprehensive vegetation management plan.
- Inspecting poles and structures and remediating identified risks in accordance with priority.
- Sectionalizing with strategic placement of reclosers (enhanced with directional finding capabilities) and addressing unfused taps.
- Strategically placing lightning-arrestors.
- Performing physical inspections, identifying, and categorizing deficiencies, and performing corrective maintenance on those deemed as requiring urgent or emergency action.
- Rebuilding critical substations (particularly those susceptible to flooding)
- Addressing the damaged or partially restored infrastructure impacted by Hurricane Maria, Hurricane Fiona.

3.2 Assumptions and Considerations

The ERP-Base Plan, Section 4, identifies the overall assumptions and considerations. Assumptions identified within this appendix specific to addressing damage assessments:

- Damaged sections of the electrical system may be de-energized and isolated, allowing service to be restored up to the point of damage, and leaving the site safe until permanent repairs can be completed.
- Events requiring damage assessment can occur at any time, with little to no warning.
- Repairs are completed in a timely manner.
- Assessments of needed repairs are used to prioritize assignment of repair crew resources.

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- Prepositioned contracts, Memorandums of Understanding, and Mutual Aid are maintained and activated when the scope of the incident requires additional resources beyond LUMA's capabilities.
- LUMA and other agencies will facilitate coordinated response efforts and share information prior to and during the event to assist in establishing a common operating picture and efficient response.
- Damage assessment data must be collected in a standardized format to align with FEMA's Public Assistance requirements.
- Damage assessment activities will rely on standardized digital tools and geospatial platforms to collect, transmit, and visualize field data in real time. Data integration ensures a common operating picture within the LEOC and alignment with FEMA reporting formats.

4.0 Concept of Operations

In the event of a major outage event, LUMA responds and quickly assesses the damage to the T&D infrastructure. Then, LUMA takes the necessary actions to mitigate cascading effects from a long-term power outage and restores service, minimizing the impact on the residents of Puerto Rico. Damage Assessment activities include Aerial and Ground Based Damage Assessment. Aerial assessments execution is directed through the LEOC Operations Section. All assessment activities are coordinated by the LEOC P&I and Ops Sections to plan, implement, and utilize damage assessments. Close communication between the Operations and P&I sections is maintained to validate damage assessment data and prioritize engineering and repair work.

Ground-based Damage Assessment Strike Teams (DAST) consist of a trained damage assessor, a driver and the required equipment for completing damage assessments (e.g. vehicle, tablet/phone, drone, etc.). Internal LUMA Damage Assessors are trained in the required tools and receive annual refresher training. For safety and efficiency reasons, Damage Assessors are not allowed to work alone when conducting assessments of transmission and distribution lines, including telecommunications fiber optic cable. Exceptions to this may occur when damage assessors are dispatched to defined locations where the safety risks are low. This includes the ability to safely park their vehicle before observing the condition of assets, having clear communication with the SERT and good awareness of the safety risks on site and enroute prior to dispatch. It is critical that, while driving, personnel are focused on driving and not performing other tasks.

Damage Assessors receive training for the tools required for damage assessment before beginning assessments. LUMA Repair Crews consist of personnel qualified to complete repairs to the T&D System and the equipment needed for such repairs. Each LUMA T&O crew has one member trained on damage assessment, or accompanied by a trained damage assessor, so that Repair Crews can create and close damage assessment reports when needed.

4.1 Activation

4.1.1 Damage Assessment Personnel Activation

The overarching responsibility of the damage assessments rests on the Damage Assessment Group Branch Director within the P&I section, as described in Appendix B of the ERP- Base Plan. The Damage Assessment Branch Director, responsible for damage assessment strategy and coordination, supervises

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the P&I Support Team (Damage Assessment) that works hand-in-hand with each of the ROCCs Damage Assessment (DA) Unit Leaders. P&I Section Chief in the LEOC, in coordination with the Operations Section Chief, is responsible for activating the Damage Assessment Group Branch Director (LEOC), Damage Assessment Unit Leaders (ROCCs), and SERT Damage Assessment Coordinators. These leaders request activation of the required Damage Assessment Strike Teams (DASTs) and support staff based on the nature of the event. DASTs will normally be activated in the following priority as needed:

1. LUMA ROCC DASTs
2. LUMA Island Wide DASTs
3. Pre-positioned contract DASTs

LUMA ROCC DASTs are pre-assigned LUMA employees that are assigned to ROCCs in the regions where they reside. They are activated directly by the ROCC, preferably during the Pre-Event Stage, so they can review the expected priorities, ensure full readiness and perform required safety checks prior to the event and be ready to begin assessments as soon as conditions are safe during the Initial Response Stage. The ROCC DA Unit Leader will contact the assigned DASTs from their ROCC to confirm their availability and inform the LEOC P&I Resources Unit Leader.

LUMA Island Wide DASTs (under P&I) are LUMA employees pre-assigned to DAST, but not assigned to any specific ROCC, so they can be assigned to the region most in need. During the Pre-Event Stage, when possible, the LEOC P&I Section Damage Assessment Branch Director will contact LUMA Island Wide DASTs to confirm their availability and place them on standby. The LEOC Logistics Section will also confirm the number of DASTs available from contractors under pre-positioned contracts and provide that information to the LEOC Operations and P&I Section.

Pre-positioned contracts, also known as “advance contracts” or “standby contracts,” play a pivotal role in enhancing LUMA’s readiness and response capabilities during both steady-state operations and emergencies. These contracts, established before disaster events, enable LUMA to swiftly augment their internal resources if Damage Assessment resources are insufficient to adequately respond to the disaster damage. These contracts may be in the form of personnel, supplies, and/or equipment to form Pre-positioned contract DASTs. By securing agreements with pre-determined costs for critical services and goods, LUMA reduces the uncertainty and delays often encountered during emergency procurement processes. During a LEOC activation, requests for contract “notice to proceed” are coordinated through the Logistics Section Chief with the approval of the IC. The resources obtained are then allocated between LUMA’s ROCCs based on the incident’s needs. The resources allocated to LUMA may be pre-staged, taking into consideration the forecasted weather impacts and any pre-determined minimum staffing requirements.

Aerial Damage Assessment is conducted under the LEOC Operations Section, Air Operations Unit Leader with available helicopters to complete aerial assessments. Qualified observers for aerial assessments are assigned by the LEOC Operations branch from the pool of experienced transmission line workers. For aerial damage assessment, the island has been divided into quadrants, each quadrant is patrolled separately. Preliminary aerial damage assessments look at the transmission lines in an area and identify segments of those that have sustained significant structural damage or are preventing re-energization. After preliminary damage assessments are complete, lines will be re-energized where possible before a more detailed structure by structure assessments are completed based on priorities set by the LEOC P&I Section.

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Preliminary aerial damage assessment is done using LUMA internal resources. If aerial resources are pulled away from assessment to work on repairs, contracted and rental units are activated to complete detailed damage assessments.

4.1.2 No Notice Incidents

In a no notice event, activation and mobilization of DASTs happen simultaneously to the extent possible. Once activated, the ROCCs activate their pre-assigned DASTs and LEOC P&I and Logistics sections confirm the availability of Island Wide and Contract DASTs, respectively. If additional DA resources are needed and validated, Operations, P&I, and Logistics Section Chiefs prioritize and allocate available DASTs. The LUMA Island Wide DASTs and Contract DASTs will then be assigned to the SERTs via the LEOC Logistics Section, particularly the Contract Administration Unit Leader for contractors, according to requests from the SERTs.

Record keeping and documentation requirements remain the same as for events with advance notice.

4.2 LUMA Event Types

Damage Assessment is typically only required for Event Type 1, 2, and 3 as defined in section 6.3 of the Base Plan. Damage Assessment response is scalable to the magnitude of the event through additional activation LUMA Island Wide DASTs and contracts. Event Type definitions are fully aligned with the ERP Base Plan Section 6.3 and cross-referenced in Appendix A.

5.0 Response and Restoration Operations

The objectives of the Damage Assessment process are to provide the damage information needed to:

- Plan and prioritize service restoration for maximum impact, including:
 - location and extent of damage
 - damage prevention through re-energization
 - detailed descriptions of damage needed to engineer solutions
- Provide accurate cost estimates to determine eligibility for disaster assistance funding

Damage Assessment response is based on an iterative process of prioritization, assessment, and repair. Inputs to the cycle include:

- Lists of priority assets for damage assessment based on:
 - Customers impacted (Criticality, quantity)
- System Status (distribution, transmission, substation, generation)
- DASTs
- Aerial Assessment resources

Outputs from the process include:

- Damage descriptions
- Location of damage preventing re-energization for planning
- Updated asset information from repaired locations
- Estimates of the cost and extent of damage by municipality

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5.1 Mobilization of Personnel

The mobilization of field personnel following an event type 3,2 or 1 during the initial response stage is considered at the point in time when:

- 1) Field personnel can be dispatched without unacceptable safety risks from dangerous field conditions (where adverse weather conditions are applicable) and
- 2) The potential additional damage to the electric system would be low in proportion to the expected level of damage already sustained.

The mobilization timeline may be different for specific local areas where the effect of an emergency limits access to facilities (e.g., severe flooding).

To simplify mobilization of personnel, reduce travel time and manage costs, LUMA strives to mobilize internal personnel to locations near their homes, when possible. Damage Assessors are only mobilized to a location when requested by the SERT via the ROCC. When LUMA DASTs must be assigned away from their residency area, arrangements for accommodation will be made through the LEOC Logistics section.

5.2 Emergency Event Stages

5.2.1 Approach

During emergencies, the Field Operations Branch Director East & West, reporting to the Operations Section Chief within the LEOC with the subordinate ROCCs, are responsible for safely and efficiently restoring electric service. This requires identification of damage to the T&D System, which is a shared responsibility between the Operations Section and the P&I Section. Coordination between these sections is essential for effective disaster response.

The Incident Command System (ICS) is flexible depending on the event's level of decentralization and impact. Under the direction of the Field Operations Branch Directors East & West, the field teams respond to the event as efficiently as possible.

- The System Emergency Restoration Teams (SERTs) are responsible for general restoration, vegetation clearing (tree removal), and system repairs.
- The ROCC Safety Officer and trained Damage Assessment Team members are responsible for facilitating the response to downed wires (guarding the site from the public to maintain minimum approach distances) and other immediate Health, Safety, and Environment situations.
- The Operations Section Priority Restoration Group (PRG) is responsible for the priority restoration of critical facilities. The PRG operates in a centralized or decentralized environment as required.
- Damage Assessment Strike Teams (DASTs) are responsible for conducting and reporting on DAs.
- Dispatch supports all emergency response and restoration requests for field teams and Emergency Operations Centers (EOCs).

In any emergency, three vital pieces of information must be gathered to enable an effective restoration:

- Number of electric customers out of service.

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- Amount of damage to the T&D System.
- Manpower available (along with the timing of availability) to repair the damage.

Following an outage and activation of the ERP, Damage Assessment is conducted following five basic stages, which support safe, rapid restoration of electrical service and reimbursement of eligible costs.

1. Pre-Event Stage
2. Emergency Stage
3. Initial Response Stage
4. Restoration Stage
5. Demobilization Stage

5.2.2 Pre-Event Stage

The focus of the pre-event stage is on preparation. When a potential weather event is identified, Damage Assessment personnel in the LEOC and ROCCs may be activated. Based on weather forecasts, the location and extent of the damage will be predicted and DASTs are pre-positioned in regions based on expected impact in the region.

Active DASTs prepare their equipment, ensure that all safety equipment is in good working order and prepare for possible post-event situations, such as power and communication outages by downloading data needed to work offline. The objective is to be able to start damage assessments as soon as possible after a storm passes.

5.2.3 Emergency Stage

During the event, the safety of people and property is the priority. LEOC and ROCC leadership confirm the safety and availability of people and equipment after the event and identify anyone who needs additional assistance from the local authorities. Personnel who require additional assistance are encouraged to contact their supervisor if possible.

5.2.4 Initial Response Stage

During the Initial response stage, the objectives of the Damage Assessment Process are:

- Identify damage that creates a public safety hazard or prevents re-energization
- Enable prioritization of repair work based on critical load centers
- Enable preliminary estimates of the extent of damage by municipality for the Puerto Rico Initial Damage Assessment (PRIDA)

All lines and feeders in the T&D system have a critical rating based on the critical customers and total number of customers they serve. Damage assessments are prioritized based on available outage data and the criticality of the line.

Aerial damage assessment of the 230 kV and 115 kV transmission system begins as soon as conditions, including Federal Aviation Administration (FAA) restrictions allow, as these lines are critical for restoration of the rest of the system. The next priorities for the aviation team are the parts of the 38 kV system requiring

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aerial assessment. Wide area data from the aviation team may also be used to inform ground-based damage assessment priorities.

Ground-based damage assessment of substations, telecom facilities, 38 kV lines and distribution feeders begin when conditions are safe. Ground based DASTs report damage and Find-and-Fix repair crews report and repair damage as they find it. Based on the actual storm impact and outage data, additional damage assessment teams may be required. These DASTs are activated and deployed based on damage assessment priorities to meet the timelines for preliminary damage assessment specified in the ERP.

As damage assessment data becomes available, repairs are prioritized to restore critical load centers and repair-only crews are dispatched to begin making the repairs. A continuous cycle of identifying damage, prioritizing repairs, and executing priority repairs is used to ensure public safety and restore critical loads centers.

Data collected during this phase forms the foundation for the Puerto Rico Initial Damage Assessment (PRIDA). Field data must include GPS coordinates, asset ID, damage category, photographic evidence, and estimated repair type to meet FEMA data standards.

This data is captured and documented by municipality to support development of the PRIDA and determine which municipalities are likely to qualify for federal disaster assistance grants.

5.2.5 Restoration Stage

During the restoration stage the damage assessment process does not change, but the focus broadens to ensure that all event-related damage is captured, whether it impacts re-energization or not. The goals of the detailed damage assessment are:

- Identify pockets of customers without service and prioritize their restoration
- Create a complete inventory of all damaged assets for the Damaged Inventory List (DIL)

Damage assessment priorities are still based on critical load centers and outage data, but damage assessments can be expanded to cover secondary lines. Customer reported service outages may also be used to identify pockets and prioritize damage assessments.

It remains critical to capture all required storm related damage data for possible reimbursement. DAST, Find-and-Fix repair crews and repair only crews all play a role in properly documenting damages.

As the Restoration Stage progresses, DASTs are demobilized if they are no longer needed. A reconciliation process between DAST records, repair logs, and financial systems is performed before DIL submission.

5.2.6 Demobilization Stage

The goal of demobilization is the orderly, safe, and efficient return of resources to their original status. As DASTs are released by the SERTs, they will be demobilized and their equipment returned if they are not needed in another region of the Island. Once all Damage Assessment activity for a SERT is complete, the SERT DA Coordinator is demobilized, and once all the DA Activity within all the SERTs of a region is complete, the ROCC DA Lead can be demobilized. Within the LEOC, demobilization of the DA Group Branch Director and subordinate P&I Staff Support Team (Damage Assessments) cannot occur until a

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hand-off is done to the LEOC FEMA LNO. Enough staff must remain mobilized to support the completion and submission of the DIL and other reporting requirements.

During the Demobilization Stage, the Damage Assessment Unit focuses on:

- Compiling damage asset information for the DIL
- Verifying that all required damage assessment records are complete and retrievable
- Demobilizing and returning resources to their non-emergency status

Damage assessment personnel will support compiling LUMA's damage assessment information for the DIL. This includes T&D system assets like lines, substations and telecom facilities as well as buildings and other assets. Before leadership roles are demobilized, they verify that the records required for invoicing and federal reimbursement are complete and stored in the correct location.

6.0 Organization

This section outlines the key functions and their responsibilities as they relate to Damage Assessment:

- **Planning and Intelligence Section**
 - **P&I Section Chief (and Deputy):** Activation of Situational Intelligence and Damage Assessment Groups; communication between P&I Section and IC/Command Staff. Collect, analyze, and manage all internal and external data, including damage assessments
 - **Damage Assessment Group Branch Director:** Coordination of damage assessment resources and priorities across all ROCCs and QA/QC of all damage assessments to ensure the detailed damage assessments are compiled to determine the extent of damage to the distribution system. Also, works closely with the Operations Section Chief to develop and distribute damage assessment summaries and the ETR.
 - **Resources Unit Leader:** Establishes all incident check-in activities, preparing resource status information; maintaining displays, charts, and lists that reflect the status and location of resources, transportation, and support vehicles; and maintaining a master check-in list of resources assigned to the incident, including damage assessment personnel and equipment.
 - **Engineering Group Branch Director: supervises P&I Support Staff (Damage Assessments) performing QA/QC of damage assessment data, creation of WOPs and BOMs for repair work as required.**
- **Logistics Section**
 - **Contract Administration Unit Leader:** Confirm availability of contracted DASTs, issue Notice to Proceed Notify them of assignments and the end of assignments.
 - **Transportation & Fleet Unit Leader:** Arrange transportation for LUMA DASTs
 - **Food & Lodging Unit Leader:** Arrange lodging for LUMA DASTs working away from their home base
- **Operations Section**
 - **Operations Section Chief (and Deputy):** Activation of Operations Section and ROCCs
 - **Field Operations Branch Director East and West:** Direct and manage ROCCs tactical operations which include damage assessments and restoral efforts. Identify and request

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additional resources based on requirements validated by the Operations Section Chief.

- **Priority Restoration Group Branch Director:** Coordinates restoration priorities to integrate Operations, P&I, and Logistics resourcing efforts at the LEOC with the execution at the ROCCs and subordinate SERTs.
- **Air Operations Unit Leader:** Coordinate air operations, including aerial damage assessment of transmission lines
- **ROCC Commander:** Activation and mobilization of SERT teams
- **ROCC Damage Assessment Unit Leader:** Coordinate damage assessments between different SERTs in the region and notify LEOC of resource needs and excess resources available.
- **SERT Chief:** Complete the damage assessment priorities assigned by LEOC and ROCC.
- **SERT Damage Assessment Coordinator:** Track the assignment of all DASTs assigned to the SERT and notify ROCC DA Unit Leader and LEOC of resource needs and excess resources available.
- **Damage Assessment Strike Team:** Complete and document assigned damage assessments
- **Finance Section**
 - **Finance Section Chief (and Deputy):** Track and manage all financial aspects to include costs related to damage assessments and restoration efforts.
 - **Time & Cost Unit Leader:** Ensure that all records are current and complete before demobilization
 - **Cost Recovery Unit Leader:** Review and audit time and cost tracking and emergency contracts to ensure eligibility for reimbursement.
 - **Claims Unit Leader:** Ensure all claims documentation complies with FEMA reimbursement requirements and is submitted, filed or stored appropriately.

7.0 Communications

In addition to internal reporting within the LEOC and to the CMC, the DA Branch group team provides data input to the PREB and P3A reports, as well as FEMA required reporting such as the PRIDA and DIL.

8.0 Appendix Development and Maintenance

This appendix is a living document. Development and maintenance of this appendix are in conjunction with the LUMA ERP. Proposed changes should be sent to the Emergency Preparedness Department of Operations for approval and inclusion.

Please reference the LUMA ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

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9.0 Damage Assessment Process Flow

The Damage Assessment Process Flow outlines the sequential actions taken by LUMA to capture, certify, and report infrastructure damage data. This process supports safe and efficient restoration, situational awareness, and compliance with FEMA reimbursement documentation requirements.

The process begins when the LEOC activates and continues through initial response, restoration and demobilization stages. Each stage ensures that data is collected in a standardized format, verified for accuracy, and transmitted through the appropriate reporting channels.

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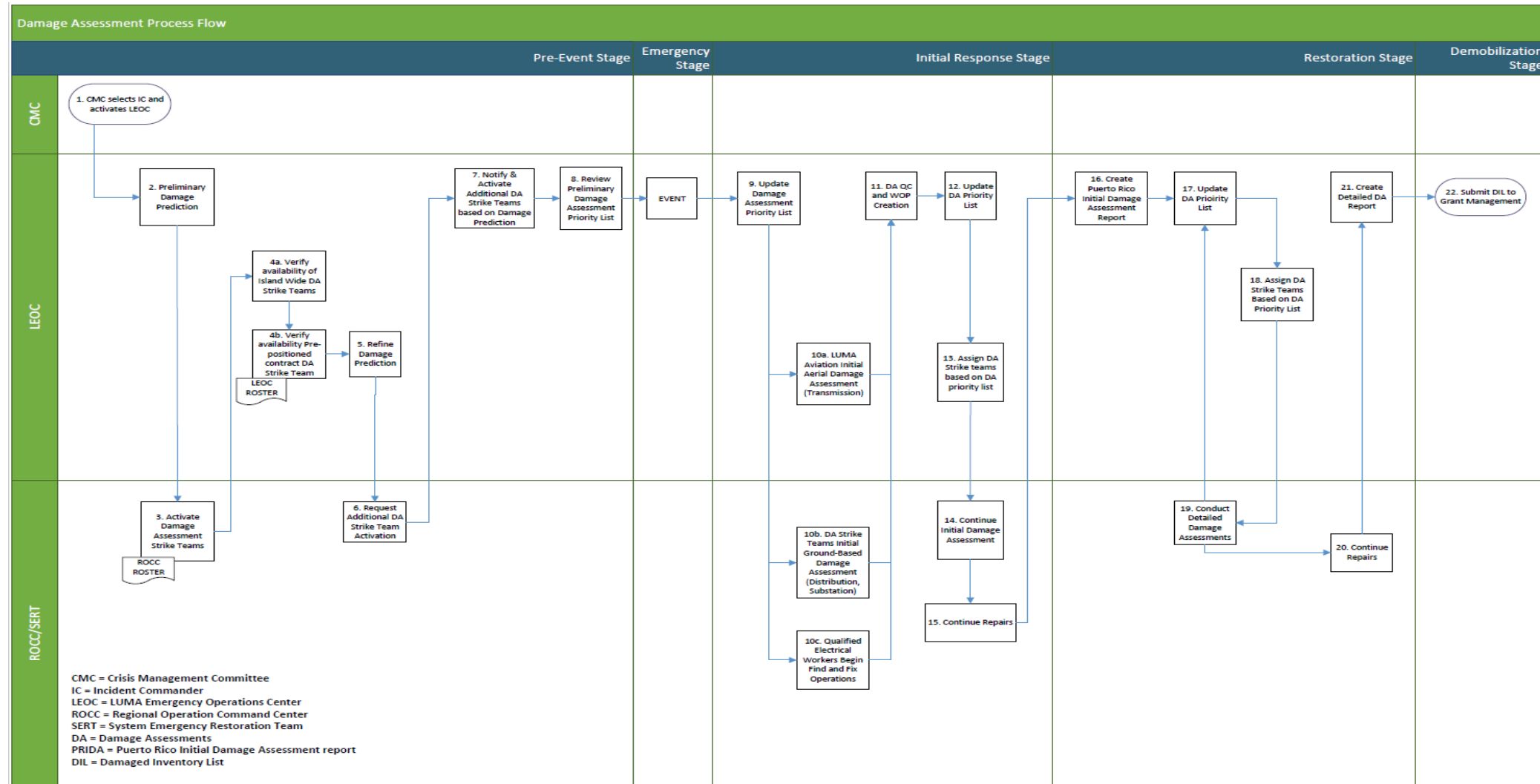


Figure 5: Appendix B: Storm Response High Level Process Map

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LUMA Energy

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List of Acronyms

ACRONYM	DEFINITION
CEO	Chief Executive Officer
CMC	Crisis Management Committee
DA	Damage Assessment
ERP	Emergency Response Plan
ETR	Estimated Time of Restoration
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise Evaluation Program
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
JIC	Joint Information Center
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
MAA	Mutual Aid Agreement
MOA	Memorandum of Agreements
NIMS	National Incident Management System
OE	Outage Event
OMA	Operations Management Agreement
OMS	Outage Management System
P&I	Planning & Intelligence
PIO	Public Information Officer
PREMB	Puerto Rico Emergency Management Bureau
PSC	Planning & Intelligence Section Chief
ROCC	Regional Operations Command Center
SCADA	Supervisory Control and Data Acquisition
T&D	Transmission & Distribution

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Annex B – Fire Response

1.0 Purpose

The purpose of LUMA's Fire Response Annex (Annex B) is to describe the key functions that LUMA implements to address fire-specific events that affect facilities and infrastructure that provide electric service throughout Puerto Rico.

Annex B provides guidance to assist in protecting lives and property and maintaining continuity of service throughout the electric grid when affected by any minor or major fire-related incident or event. A vital feature of Annex B is scalability, which allows for expansion and retraction of responding resources depending on the severity of the emergency. Many emergencies are manageable at a local or internal level but can quickly escalate to a system-wide emergency.

2.0 Scope

Annex B applies to emergency events caused by a fire event or fire-related hazards that result in, or could result in, a major impact on the integrity of the Transmission and Distribution (T&D) System or any other disruption of electrical service to LUMA customers. Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

3.0 Situation and Assumptions

3.1 Situation

LUMA's ability to respond to an emergency fire event or fire-related hazards to lessen the effects of power outages, public safety hazards, or property damage on communities depends upon a combination of coordinated decisions internally and externally regarding local emergency services personnel and resources. Uncontrolled fire events have the potential to expand into a major emergency and can negatively affect the safety of others, property, and the ability of LUMA to provide continuous electric service to its customers.

The effectiveness of Annex B is predicated on LUMA's commitment to prepare and implement guidance and best practices outlined within Annex B and the Emergency Response Plan (ERP) – Base Plan. Execution of the appropriate responses to affect rapid and safe preparation and recovery is dependent upon the scalability of Annex B. The number of customers affected, and the magnitude of a Major Outage Event and public safety risks vary, but the operational concept stays consistent. The level of recovery resources can be adjusted as needed.

Additional natural or man-made hazards may require a change in the Event Type, which requires flexibility in this Annex. There are five (5) Event Types and Activation Levels located in the ERP - Base Plan, Appendix A.

3.2 Assumptions and Considerations

LUMA's ability to prepare for, respond to, and recover from any type of incident that may affect the T&D System is critical. The concepts for preparation, response, restoration, and recovery are outlined within the

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ERP – Base Plan and Annex A, Major Outage Restoration. Identified below are additional assumptions and considerations regarding responses to emergency incidents, such as fire, which include, but are not limited, to the following:

- Preemptive actions to reduce the potential impacts of fire events may be implemented in response to fire-related hazards.
- Damage Assessment Strike (DAs) determines the impact and magnitude of damage and should be conducted within a reasonable timeline.
- DA reports identify affected geographic area(s) that contribute to the estimated impacts and time of restoration baseline projection.
- Normal resources and processes for supporting impacted areas for power restoration may not be enough due to the severity and duration of the outage and the extent of the damage.
- Natural and man-made emergencies, such as facility or infrastructure fire(s), will necessitate the utilization of local fire service resources.
- Fire events will present issues that require a response by law enforcement, fire departments, electric and water/wastewater utilities, public health authorities, and environmental protection agencies. In these cases, effective interagency coordination utilizing the National Incident Management System (NIMS) / Incident Command System (ICS) is essential.
- Minor or major emergency events, disasters, and acts of terrorism may adversely impact local available public safety personnel, equipment, facilities, and communications systems.
- Pre-positioned contracts are maintained and activated when the scope of the incident requires additional resources beyond LUMA's capabilities.
- Potential weather conditions will affect the response and restoration actions.
- Assessment, prioritizing, and scheduling of repairs are conducted throughout the response and restoration process.

4.0 Concept of Operations

If an emergency event results in or may result in damage to facilities or power outages, LUMA responds and rapidly assesses the impacts on the T&D System infrastructure and takes the necessary actions to mitigate cascading effects from continual power outages and implement restoration protocols.

To ensure response integration, the Puerto Rico Emergency Management Bureau's (PREMB) Incident Levels and LUMA's Event Types are utilized and identified in the ERP – Base Plan.

4.1 Activation

The efficient activation of emergency response personnel is critical to the success of any response. Fires and fire-related hazards can affect LUMA operations outside daily steady-state operational boundaries. If it

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is not possible to effectively manage an event through normal operating procedures or within normal departmental controls, the LEOC is activated in the direction of the CMC or the LUMA Chief Executive Officer (CEO) by naming a LUMA Incident Commander (IC). Due to the size and nature of the activation process, it is intended to be a cascading one to maximize response efficiency and consistency.

4.1.1 No-Notice Incidents

A no-notice incident occurs unexpectedly or with minimal warning. No-notice incidents do not provide emergency responders enough time to prepare for the specific event. Fire is an example of a non-notice incident. During a no-notice event, the determination of an Event Type is needed before the establishment of an Activation Level. This is done by the IC once designated by the CMC.

4.2 LUMA Event Types

The Event Type depends upon the analysis of the expected severity and complexity of an event and is drawn from the consideration of numerous factors. The LUMA Event Types and their anticipated operating conditions are described in Section 6 of the ERP and Section 7 of Annex A.

4.3 Restoration Operations

Restoration Operations conducted in response to an event impacting LUMA's distribution and transmission scheme are the responsibility of the Planning and Dispatch Team. Directives from the LUMA Emergency Operation Center (LEOC) follow the LUMA Restoration Strategy and the Concept of Operations, both of which can be found in the Major Outage Restoration Annex (Annex A, Sections 6 and 7).

4.3.1 Approach

LUMA assesses, during or after a fire, the damage to the T&D infrastructure and completes any critical repairs. The Wildfires Event Protocol, under System Operations, provides guidance to assist in maintaining the stability of the electrical system when affected by wildfire events. Additionally, the protocol includes preventive measures to manage the electric infrastructure and its easement in areas with potential danger of wildfires. The Regional Operations Command Centers (ROCCs) across the island report to the Division Branch Director(s), who directs the response of field teams.

The transition from the emergency stage to the initial response stage takes place during the time when (1) restoration personnel in the field can be deployed without unacceptable safety risks due to the continuation of hazardous conditions and (2) when the potential additional damage to the T&D System is low in proportion to the expected level of damage already suffered.

The start of the initial response stage may be different for specific areas where the effect of the incident caused other adverse conditions, such as additional debris and limiting access to damaged areas. When a fire occurs, an effective response occurs when timely and accurate information is provided, which includes, but is not limited to, the following:

- Number of clients out of service.
- Amount of damage to the T&D infrastructure.
- Labor (along with their availability) to repair the damage.

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In response to a fire event or fire-related hazards and activation of the ERP, the operation of electrical services is carried out by following four basic steps:

- 1) Make safe protocols.
- 2) DA (preliminary and detailed assessments).
- 3) Prioritization of restoration.
- 4) Execution of tactical restoration operations.

4.3.2 Mobilization of Personnel

Most fires occur with little to no warning. Therefore, LUMA may be required to institute a safe deployment of resources depending on the Event Type.

The most critical component to mobilizing personnel is flexibility to adapt as the threat becomes more certain.

- The IC is responsible for notifying the Command Staff of LEOC activations.
- The IC may activate other roles based on incident developments and the Event Type.
- Notifications are made in accordance with the LUMA Performance Metrics for the Mobilization of Personnel located within the ERP - Annex A.

4.3.3 Damage Assessment

DA is a key component of restoration operations. The DA process utilizes DA Teams, or additional support as needed, to physically inspect and report damages on overhead primary, secondary, transmission, and substation assets. Assessment personnel are managed through the DA Branch, and they provide access to their reports to the Planning & Intelligence (P&I) Section, the Operations Section, and the Regional Commanders, who determine resources and equipment requirements to make the repairs and restore services. The order of DA evaluation is based on the restoration priority list and interconnection of assets.

4.3.4 Restoration

As outlined in Annex A, LUMA follows restoration processes safely and efficiently to repair damage and restore electrical service. Field DAs and repairs can begin when:

- Field personnel can be deployed without safety hazards or dangerous conditions.
- The potential for additional damage to the T&D System is low.

Prioritization

Outages are prioritized by:

- Safe working conditions.
- Damage to LUMA facilities or infrastructure.
- Critical Community Lifelines, customer type, and the number of affected customers.
 - LUMA identifies a summary of Major Outage Event Performance Metrics located within the ERP, Annex A.

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Situational Assessment

LUMA completes an evaluation of the system through the Supervisory Control and Data Acquisition (SCADA), Outage Management System (OMS), and reported outages from LUMA customers. When the Event Type has been determined, staff are assigned according to the structure of the LUMA identifiers.

4.3.5 Emergency Fire Event Conditions

The Restoration Priority Matrix and Critical Facility Level protocols are consistent in both normal and emergency operations for any type of event. Municipal emergency response resources, such as law enforcement or fire departments that respond to the incident, should provide LUMA with the status of the area/facility before a DA can be conducted.

4.3.6 Make Safe Protocols

During an incident, the number of resources that are trained and readily available may be limited, and the demand could greatly exceed those available. LUMA ensures “make safe” actions are taken and acknowledges it may be necessary to contract additional resources to support safe and restoration activities.

5.0 Estimated Time of Restoration

Damages that cause transmission or distribution interruption due to fire, and fire-related hazards(s) which may impede restoration operations, must be investigated upon notification of an impending or immediate incident. Subsequently, timely and accurate Estimated Times of Restoration (ETRs) are provided to all LUMA customers and stakeholders. Providing accurate ETRs is a top priority of LUMA’s overall restoration process.

The flexibility of an event requires a strategic, deliberate, planning-oriented posture that allows a utility to plan:

- Resource needs
- Operational periods
- Strategic objectives
- Staff fatigue
- External communications

Expected actions related to ETRs are found in ERP Annex A, Section 5.

6.0 Organization

This section describes the key functions of the various components and positions of the organizational structure. An orderly and consistent flow of information between operations, communications, logistics, and partner support organizations is necessary in times of Major Outage Events. The organizational charts indicating the lines of authority and the interrelationship between the organizational groups can be found in Appendix A of Annex A.

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6.1 LUMA Leadership

In response to a fire event or fire-related hazards, LUMA leadership maintains an ongoing and open dialogue to discuss and share information about the impact on the T&D System. This dialogue ensures full situational awareness among leadership teams and provides a platform to facilitate discussions on the possible exchange of staff resources and other support functions between entities.

This approach provides the mechanism for consistent messages to employees, customers, and other external stakeholders. Following a fire or fire-related hazard(s), the LUMA leadership team and the CMC activate the applicable functional areas as needed.

6.2 LUMA Emergency Roster

The organizational structure of LUMA during outage restoration can be found in Appendix A of Annex A. Refer to the LUMA ERP – Base Plan for a list of roles and responsibilities.

7.0 Direction, Control, and Coordination

This Annex provides the framework for a systematic response when fire-related incidents occur, and restoration operations are required. Determination of an appropriate response is based on multiple factors, which include:

- DA(s)
- Determination of Event Type
- Coordinated response utilizing the ICS

The LUMA ERP, its Annexes, and Appendices, identify the framework to respond to and recover from natural and man-made events. For additional information related to direction, control, and coordination, refer to the ERP – Base Plan, Section 8.

8.0 Communications

LUMA provides timely, accurate, and consistent communications following a fire. Emergency communications may include alerts and warnings from verified emergency notifications. Communications may include information about protective measures, LUMA response and restoration status, available assistance, and other matters affecting LUMA's response and recovery.

The LUMA PIO communicates timely and accurate information. LUMA communicates information through a variety of methods, including but not limited to the following:

- LUMA's website and customer app, as available.
- News media.
- Social media, including the use of Twitter, Facebook, and Instagram, among others.

LUMA has established a consistent messaging platform flexible enough to allow for internal or external expansion, depending on the Event Type. The Event Type chart can be found in Appendix A of the ERP - Base Plan.

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9.0 Demobilization

The Incident IC is responsible for initiating the de-escalation/demobilization process. Demobilization is the orderly, safe, and efficient return of operations, facilities, and resources to their pre-incident status. Demobilization planning is an ongoing process that facilitates accountability and ensures efficient resource management.

Tracking resource requirements and releasing those resources that are no longer required to support the response is essential for accountability and managing incident control. This assists in reducing the loss of resources, limiting operating costs, and ensuring retention and availability of resources for other activities and assignments as needed.

The Planning & Intelligence Section Chief (PSC) develops demobilization plans and ensures they are implemented as instructed by the IC.

The emergency response operations may be fully demobilized when:

- All event-related jobs are assigned.
- Centralized Dispatch is managing the event.
- All non-regional crews are released.

10.0 Training and Exercises

Successful response to emergency events requires a Company-wide commitment to preparedness integrated into LUMA's daily operations, not just during incidents. Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, Emergency Preparedness Department staff, and PREMB personnel; and maintaining updated contact information of personnel and organizations that may assist in LUMA's restoration efforts. Every employee is expected to participate in preparedness activities throughout the year.

The Emergency Preparedness Department maintains the ERP-related training database and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities and support the safe and reasonably prompt completion of all required actions during ERP activations.

The LUMA exercise program is consistent with the Homeland Security Exercise Evaluation Program (HSEEP) developed by the Federal Emergency Management Agency ("FEMA"). The HSEEP methodology is defined and implemented using seven exercise types, broken into the categories of discussion-based exercises and operations-based exercises. LUMA employs a variety of exercise types based on the exercise goals and objectives. The goal of conducting exercises is to enhance training, improve familiarization, evaluate or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

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11.0 Annex Development and Maintenance

This Annex is a living document. The development and maintenance of this Annex are in conjunction with the ERP-Base Plan. Proposed changes should be sent to the Emergency Preparedness Department for approval and inclusion.

Please reference the ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

12.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 2) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of incidents.
- 3) **Demobilization** – The ongoing process of disengaging response resources as incident objectives are met and returning them to their normal function.
- 4) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
- 5) **Emergency or Emergency Event** – Any outage event, as per the T&D Operations Management Agreement (OMA); declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LUMA Emergency Roster.
- 6) **Emergency Operations Center** – The physical locations at which coordination of information and resources to support incident management activities occurs.
- 7) **Incident Action Plan (IAP)** – Includes the overall incident objectives and strategies established by the Incident Commander. The Planning Section is responsible for developing and documenting the IAP.
- 8) **Incident Commander** – The individual appointed by the Company's Crisis Management Committee (CMC) to have overall responsibility for LUMA's response during an incident.
- 9) **Incident Command System** - Coordinated and collaborative incident management construct specifically designed and made a part of the NIMS under FEMA.
- 10) **Joint Information Center (JIC)** – A central point of contact for new media and interest parties to coordinate incident information activities.
- 11) **LUMA Emergency Roster** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation. Includes those in the EOCs and those in the field.

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Appendix A: Hazards Assessment

For some areas in Puerto Rico, the dry season starts around January and extends throughout April. In May, the island experiences relief from dry conditions in some areas. Dry conditions begin to develop again around June, continuing throughout August. In Puerto Rico, the southern region is characteristically dry all year round. This makes the zone prone to wildfires from January through May (mostly February) because of low precipitation. The vegetative material and the hydrated flora do not burn; there must be an accelerant for it to burn. Due to the abundance of woody debris/fuel following Hurricane Maria, there was an increase in wildfires within green and hydrated areas. It is estimated that Puerto Rico experiences 2,000 to 5,000 forest fires annually.

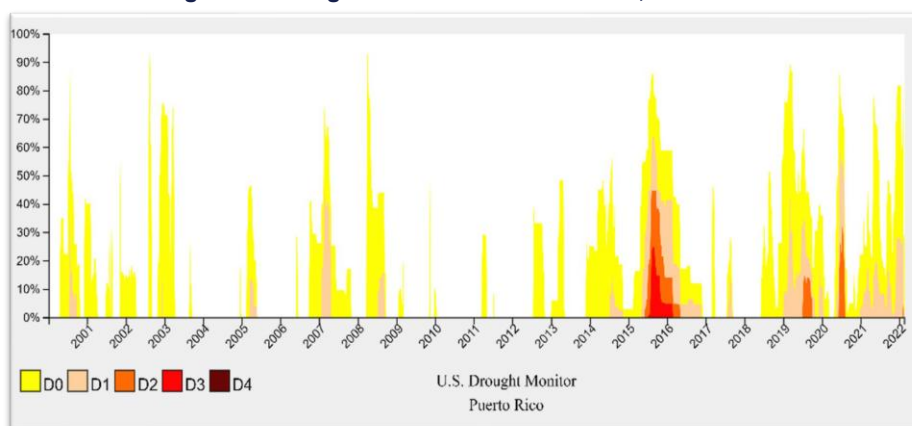
Electrical Hazards

Substations and electrical facilities contain combustible materials that can create fires and explosions due to shorts or equipment damage. The fires are generally created because of other equipment failures. Still, due to the nature of the assets, the fires can result in large outages and complicated restoration conditions.

Tree Hazards

After a fire, many trees are weakened from burning around the base of the trunk. The trees can fall over or blow down without warning. Shallow-rooted trees can also fall.

Figure 1: Drought Monitor for Puerto Rico, 2001-2022.



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Annex C – Earthquake Response

LUMA Energy

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List of Acronyms

ACRONYM	DEFINITION
CEO	Chief Executive Officer
CMC	Crisis Management Committee
DA	Damage Assessment
EOC	Emergency Operations Center
ERP	Emergency Response Plan
ETR	Estimated Time of Restoration
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise Evaluation Program
IC	Incident Commander
ICS	Incident Command System
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
NIMS	National Incident Management System
OE	Outage Event
OMS	Outage Management System
P&I	Planning & Intelligence
PIO	Public Information Officer
PREMB	Puerto Rico Emergency Management Bureau
PSC	Planning & Intelligence Section Chief
ROCC	Regional Operations Command Center
T&D	Transmission & Distribution

Emergency Response Plan

Annex C – Earthquake Response

1.0 Purpose

The purpose of LUMA's Earthquake Response Annex (Annex C) is to describe the key functions that LUMA implements in response to an earthquake or earthquake-related hazard that affects the Puerto Rico Transmission and Distribution (T&D) System facilities and infrastructure that provide electric service throughout Puerto Rico.

Annex C provides guidance to assist in protecting lives and property and maintaining continuity of service throughout (T&D System) when affected by any minor or major earthquake or earthquake-related incident or event. A vital feature of this Annex is scalability, which allows for the expansion and retraction of responding resources depending on the severity of the Outage Event (OE). Many emergencies are manageable at a local or internal level but can quickly escalate to a system-wide emergency.

2.0 Scope

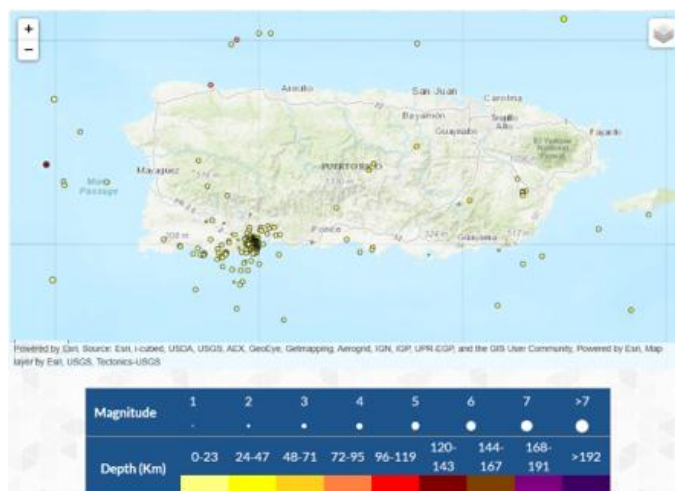
Annex C applies to emergency events caused by earthquakes and earthquake-related hazards that result in, or could result in, a major impact on the integrity of the T&D System or disruption of electrical service to LUMA customers. Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

3.0 Situation and Assumptions

3.1 Situation

Annex C applies to emergency events caused by earthquakes and earthquake-related hazards that result in, or could result in, a major potential impact on the integrity of the T&D System or disruption of electrical service to LUMA customers. Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

Figure 1: Puerto Rico Earthquakes, December 2019 – March 2025.



Emergency Response Plan

Annex C – Earthquake Response

The effectiveness of this Annex is centered on LUMA's commitment to prepare and implement the guidance and best practices outlined within this Annex and the rest of the Emergency Response Plan (ERP).

The number of customers affected, and the magnitude of a Major Outage Event may vary, but the operational concept stays consistent. The level of recovery resources can be adjusted as needed.

Figure 2: Major Geographical Faults Overlapping Map of Power Generation Facilities.



3.2 Assumptions and Considerations

LUMA's ability to respond to and recover from any type of incident that may affect the T&D System is critical. The concepts for the response, restoration, and recovery are outlined within the ERP – Base Plan and Annex A, Major Outage Restoration. Identified below are additional assumptions and considerations regarding response to an earthquake, which include, but are not limited to, the following:

- Earthquakes of high magnitude can inflict serious structural damage to electrical infrastructure and facilities.
- Cascading effects of earthquakes may include additional damage, large quantities of debris, and simultaneous fires.
- Earthquakes can trigger earthquake-related hazards, such as aftershock earthquakes, tsunamis, surface faulting liquefaction, or landslides. For more information on these hazards, refer to Appendix A, Hazards Assessment.
- Damage assessments (DAs) determine the impact and magnitude of damage and should be conducted within a reasonable timeline.
- DA reports identify affected geographic area(s), which contribute to the Estimated Time of Restoration (ETR) baseline projection.
- Normal resources and processes for getting power restoration support to impacted areas may not be enough due to the severity of the earthquake.
- Earthquakes and earthquake-related hazards may present issues that may require a response by law enforcement, fire departments, electric and water/wastewater utilities, public health authorities,

Emergency Response Plan

Annex C – Earthquake Response

and environmental protection agencies. In these cases, effective interagency coordination utilizing the National Incident Management System (NIMS) / Incident Command System (ICS) is essential.

- Potential weather conditions may affect the response and restoration actions.
- Assessment, prioritizing, and scheduling of repairs are conducted throughout the response and restoration process.

4.0 Concept of Operations

In the event of a major outage due to an earthquake or earthquake-related hazards that result in damage to LUMA facilities or the T&D System, LUMA responds and rapidly assesses the impacts and takes the necessary actions to mitigate cascading effects from continual power outages and implements restoration protocols.

To facilitate response integration, the Puerto Rico Emergency Management Bureau's (PREMB) Incident Levels and LUMA's Event Types are utilized and identified in the ERP – Base Plan.

4.1 Activation

The efficient activation of emergency response personnel is critical to the success of any response. An earthquake happens with little or no warning, and Puerto Rico is at risk for such emergency events. If it is not possible to effectively manage an event through normal operating procedures or within normal departmental controls, the LEOC is activated at the direction of the Crisis Management Committee (CMC) or the LUMA Chief Executive Officer (CEO) by appointing a LUMA Incident Commander (IC). Due to the size and nature of the activation process, it is intended to be a cascading one to maximize response efficiency and consistency.

4.1.1 No-Notice Incidents

A no-notice incident occurs unexpectedly or with minimal warning. No-notice incidents do not provide emergency responders enough time to prepare for the specific event. An earthquake is an example of a non-notice incident. During a no-notice event, the determination of an Event Type is needed before the establishment of an Activation Level. This is done by the IC once designated by the CMC.

4.2 LUMA Event Types

The Event Type depends upon the analysis of the expected severity and complexity of an event and is drawn from the consideration of numerous factors: The LUMA Event Types and their anticipated operating conditions are described in Section 6 of the ERP – Base Plan and Section 4 of Annex A.

4.3 Restoration Operations

Restoration Operations conducted in response to an event impacting LUMA's distribution and transmission scheme are the responsibility of the Planning and Dispatch Team. Directives from the LUMA Emergency Operations Center (LEOC) follow the LUMA Restoration Strategy and the Concept of Operations, both of which can be found in full in the Major Outage Restoration Annex (Annex A, Sections 6 and 7).

Emergency Response Plan

Annex C – Earthquake Response

4.3.1 Approach

After an earthquake, LUMA safely and efficiently assesses the damage to the T&D infrastructure and completes any critical repairs. The LUMA Regional Operations Command Centers (ROCCs) report to the Division Branch Director(s), who directs the response of field teams.

The transition from the emergency stage to the initial response stage takes place during the time when (1) restoration personnel in the field can be deployed without unacceptable safety risks due to the continuation of hazardous conditions and (2) when the potential additional damage to the T&D System is low in proportion to the expected level of damage already suffered.

The start of the initial response stage may be different for specific areas where the effect of the emergency caused other adverse conditions, such as additional debris and limiting access to damaged areas. When an earthquake occurs, an effective response occurs with timely and accurate information, which includes but is not limited to the following:

- Number of customers out of service.
- Amount of damage to the T&D infrastructure.
- Labor (along with their availability) to repair the damage.

After an interruption to the T&D System and activation of the ERP, the restoration of electrical services is carried out by following four basic steps:

- 1) Make Safe Protocols.
- 2) DA (preliminary and detailed assessments).
- 3) Prioritization of restoration.
- 4) Execution of tactical restoration operations.

4.3.2 Mobilization of Personnel

Earthquakes occur with no warning. Therefore, LUMA may be required to institute a rapid deployment of resources in the safest manner possible.

The most critical component to mobilizing personnel is the ability to be flexible and adapt to optimum levels as the threat or extent of damage becomes more certain.

- The IC is responsible for notifying the Command Staff of LEOC activations.
- The IC may activate other roles based on incident developments and the Event Type.
- Notifications are made in accordance with the LUMA Major Outage Performance Metrics.

4.3.3 Damage Assessment

DA is a key component of restoration operations. The DA process utilizes DA Teams, or additional support as needed, to physically inspect and report damages on overhead primary, secondary, transmission, and substation assets. Assessment personnel are managed through the DA Branch, and they provide access to their reports to the Planning & Intelligence (P&I) Section, the Operations Section, and the Regional Commanders, who determine resources and equipment requirements to make the repairs and restore services. The order of DA evaluation is based on the restoration priority list and interconnection of assets.

Emergency Response Plan

Annex C – Earthquake Response

Assessment personnel should maintain safety and security protocols when conducting DAs after an earthquake in case of secondary earthquake-related hazards. Aftershocks may occur without warning up to days after the initial earthquake.

4.3.4 Restoration

As outlined in Annex A, LUMA follows restoration processes safely and efficiently to repair damage and restore electrical service. Field DAs and repairs can begin when:

Prioritization

Outages are prioritized by:

- Considerations of safety conditions.
- Extent of damage to LUMA facilities or infrastructure.
- Critical Community Lifelines, customer type, and the number of affected customers.
 - LUMA identifies a summary of Major Outage Event Performance Metrics located within the ERP, Annex A.

4.3.5 Emergency Earthquake Event Conditions

The Restoration Priority Matrix and Critical Facility Level protocols are consistent in both normal and emergency operations for any type of event. Municipal emergency response resources, such as law enforcement or fire departments, that respond to the incident should provide LUMA with the status of the area/facility before a DA can be conducted.

LUMA's facilities and infrastructure damages are assessed by conducting a DA. LUMA's restoration efforts focus on the prioritization objectives listed below, including, but not limited to, the following:

- Responding with appropriate resources to address emergency and life-threatening conditions regarding electrical services.
- Restoration to affected Critical Community Lifelines as outlined in Annex A.
- Disseminate timely and accurate communications of system conditions.

4.3.6 Make Safe Protocols

During a minor or major event, the number of resources that are trained and readily available may be limited, and the demand could greatly exceed those available. LUMA ensures “make safe” actions are taken and acknowledges it may be necessary to contract additional resources to support safe and restoration activities.

5.0 Estimated Time of Restoration

Earthquake damage that causes the electric system to fail and considerations regarding earthquake-related hazard(s) that may impede restoration operations must be investigated upon notification of an impending or immediate emergency event. The timespan of an earthquake may prolong the ETR. Aftershocks, and other earthquake-related hazards, can occur after the initial event. Providing an accurate ETR is a top priority of LUMA's overall restoration process.

Emergency Response Plan

Annex C – Earthquake Response

The flexibility of an event requires a strategic, deliberate, planning-oriented posture, which allows a utility to plan resource needs, operational periods, strategic objectives, staff fatigue, and external communications. The expected actions related to ETRs are found in Annex A of the ERP, Section 8.

6.0 Organization

This section describes the key functions of the various components and positions of the organizational structure. An orderly and consistent flow of information between operations, communications, logistics, and partner support organizations is necessary in times of OEs. The organizational charts indicating the lines of authority and the interrelationship between the organizational groups can be found in Appendix A of the Major Outage Restoration Annex (Annex A).

6.1 LUMA Leadership

Following an earthquake, LUMA leadership maintains an ongoing and open dialogue to discuss and share information about the impact on the T&D System. This dialogue ensures full situational awareness among leadership teams and provides a platform to facilitate discussions on the possible exchange of staff resources and other support functions between entities.

This approach provides the mechanism for consistent messages to employees, customers, and other external stakeholders. Following an earthquake or earthquake-related hazard(s), the LUMA leadership team and the CMC activate the applicable functional areas as needed.

6.2 LUMA Emergency Roster

The organizational structure of LUMA during outage restoration can be found in Appendix A of Annex A. Refer to the LUMA ERP – Base Plan for a list of roles and responsibilities.

7.0 Direction, Control, and Coordination

Annex C provides the framework for the systematic response when earthquake emergencies arise, and emergency restoration operations are required. Determination of an appropriate response is based on multiple factors, which include:

- DAs
- Determination of the Event Type
- Coordinated response utilizing the ICS

The ERP identifies the framework to respond to and recover from natural or man-made events. For additional information related to direction, control, and coordination, refer to the ERP – Base Plan, Section 8.

8.0 Communications

LUMA provides timely, accurate, and consistent communications following an earthquake. Emergency communications may include alerts and warnings from verified emergency notifications. Communications

Emergency Response Plan

Annex C – Earthquake Response

may include information about protective measures, LUMA response and restoration status, available assistance, and other matters affecting LUMA's response and recovery.

The LUMA Public Information Officer (PIO) communicates timely and accurate information. LUMA communicates information through a variety of methods, including but not limited to, the following:

- LUMA's website and customer app, as available.
- News media.
- Social media, including the use of Twitter, Facebook, and Instagram, among others.

LUMA has established a consistent messaging platform flexible enough to allow for internal or external expansion, depending on the Event Type. Refer to Appendix A of the ERP – Base Plan.

9.0 Demobilization

The IC has the responsibility to initiate the De-escalation/Demobilization process. Demobilization is the orderly, safe, and efficient return of operations, facilities, and resources to their pre-event status. Demobilization planning is an ongoing process that facilitates accountability and ensures efficient resource management.

Tracking resource requirements and releasing those resources that are no longer required to support the response is essential for accountability and managing incident control. This assists in reducing the loss of resources, and operating costs, and ensuring the retention and availability of resources for other activities and assignments as needed.

The Planning & Intelligence Section Chief (PSC) develops demobilization plans and ensures they are implemented as instructed by the IC.

The emergency response operations may be fully demobilized when:

- All event-related jobs are assigned.
- Centralized Dispatch is managing the event.
- All non-regional crews are released.

10.0 Training and Exercises

Successful response to emergency events requires a Company-wide commitment to preparedness integrated into LUMA's daily operations, not just during emergency events. Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, The Emergency Preparedness Department staff, and PREMB personnel; and maintaining updated contact information of personnel and organizations that may assist in LUMA's restoration efforts. Every employee is expected to participate in preparedness activities throughout the year.

The Emergency Preparedness Department maintains the ERP-related training database and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities and to support the safe and reasonably prompt completion of all required actions during ERP activations.

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Annex C – Earthquake Response

The LUMA exercise program is consistent with the Homeland Security Exercise Evaluation Program (HSEEP) developed by the Federal Emergency Management Agency (FEMA). The HSEEP methodology is defined and implemented using seven exercise types, broken into the categories of discussion-based exercises and operations-based exercises. LUMA employs a variety of exercise types based on exercise goals and objectives. The goal of conducting exercises is to enhance training, improve familiarization, evaluate, or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

11.0 Annex Development and Maintenance

This Annex is a living document. The development and maintenance of this Annex are in conjunction with the ERP-Base Plan. Proposed changes should be sent to the Emergency Preparedness Department for approval and inclusion.

Please reference the ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

12.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedure.
- 2) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of disasters.
- 3) **Demobilization** – The ongoing process of disengaging response resources as incident objectives are met and returning them to their normal function.
- 4) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
- 5) **Earthquake** – A term used to describe both sudden slips on a fault and the resulting ground shaking and radiated seismic energy caused by the slip or other sudden stress changes in the earth.
- 6) **Earthquake Aftershock** – Shaking of the earth's surface caused by lower magnitude tremors that follow the principal earthquake.
- 7) **Earthquake-Related Hazards** – Secondary hazards triggered by the initial earthquake. This includes but is not limited to earthquake aftershocks, tsunamis, liquefaction, surface faulting, and landslides.
- 8) **Emergency or Emergency Event** – Any outage event, as per the T&D Operations Management Agreement (OMA); declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LUMA Emergency Roster.

Emergency Response Plan

Annex C – Earthquake Response

- 9) **Emergency Operations Center** – The physical locations at which coordination of information and resources to support incident management activities occurs.
- 10) **Incident Action Plan** – Includes the overall incident objectives and strategies established by the IC. The Planning Section is responsible for developing and documenting the IAP.
- 11) **Incident Commander** – The individual appointed by the Company's executive management to have overall responsibility for LUMA's response during an Emergency Event.
- 12) **Incident Command System** – Coordinated and collaborative incident management construct specifically designed and made a part of the National Incident Management System (NIMS) under the FEMA.
- 13) **Joint Information Center** – A central point of contact for new media and interest parties to coordinate incident information activities.
- 14) **Landslides** – The movement of surface material down a slope that may be triggered by weather or earthquakes.
- 15) **LUMA Emergency Roster** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation. Includes those in the Emergency Operations Centers (EOCs) and those in the field.
- 16) **Surface Faulting** – An offset of the ground surface when fault rupture extends to the Earth's surface.

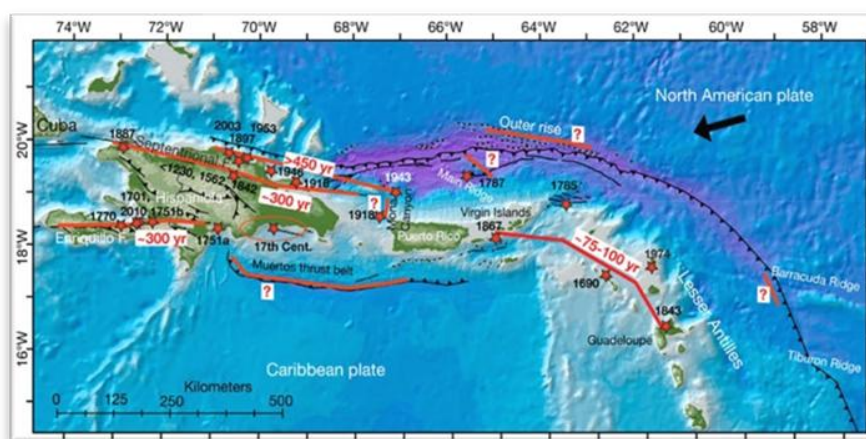
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Annex C – Earthquake Response

Appendix A: Hazards Assessment

Puerto Rico experiences frequent earthquakes due to the many geological faults that surround and cross over the island, as shown in Figure 1 – Appendix A, below. Earthquakes occur when two blocks of earth, known as geological faults, suddenly slip past one another, causing a release of energy and seismic waves. Seismic waves shake the earth's crust and may cause a significant amount of damage to roads, infrastructure, buildings, and nature. Earthquakes' widespread impact and high magnitude can trigger a variety of hazards. When planning for an earthquake, there are a variety of hazards that should be taken into consideration.

Figure 1: Appendix A: Puerto Rico Fault Lines.



Earthquake Aftershocks

Aftershocks are lower-magnitude earthquakes that occur after the main shock of a larger earthquake. They occur near the epicenter of the original earthquake or along the fault line that caused the primary quake. In many cases, they can be large enough to hamper emergency response efforts by destabilizing infrastructure and potentially causing additional stress to individuals coping with damage from the original quake. Aftershocks decrease in magnitude and frequency over time and generally are most severe in the hours and days following the primary quake.

Surface Faulting

Surface faulting is the displacement that reaches the earth's surface during a slip along a fault. It commonly occurs with shallow earthquakes, with an epicenter less than 20 km. Surface faulting can leave a visible line in the ground; noting the shift in the fault location. This can have a dramatic effect on the local infrastructure.

Landslides

A landslide is the movement of surface material down a slope. Earthquake-induced landslides are a result of the ground shaking and fault movement of an earthquake, which can potentially have a catastrophic impact on infrastructure. Landslides can include a large area of land, or surface movement that builds as it moves down the slope, both having the ability to cause significant destruction.

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Annex C – Earthquake Response

Tsunami

A tsunami is a sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes and has the potential to cause significant damage to coastal areas. Tsunami waves in the Puerto Rico region could have an average height of 30 feet. A tsunami on the northern coast of the island could affect the Central San Juan, Palo Seco, and Cambalache power plants. A tsunami on the southern coast of the island could affect Costa Sur, Central Aguirre, AES, and EcoEléctrica.

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Annex D – Severe Weather Response

LUMA Energy

NEPR-MI-2019-0006

May 29, 2026



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Annex D – Severe Weather Response

List of Acronyms

ACRONYM	DEFINITION
FEMA	Federal Emergency Management Agency
HSEEP	Homeland Security Exercise Evaluation Program
IC	Incident Commander
ICS	Incident Command System
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
LNO	Liaison Officer
MOE	Major Outage Event
NIMS	National Incident Management System
NMEAD	Negotiated for Emergency Management and Disaster Management
NRF	National Response Framework
NWS	National Weather Service
OE	Outage Event
OMA	Operations Management Agreement
OMS	Outage Management System
OSC	Operations Section Chief
P3A	Puerto Rico Public-Private Partnerships Authority
P&I	Planning & Intelligence
PIO	Public Information Officer
PREB	Puerto Rico Energy Bureau
PREMB	Puerto Rico Emergency Management Bureau
PREPA	Puerto Rico Electric Power Authority
PSC	Planning & Intelligence Section Chief
ROCC	Regional Operations Command Center
SCADA	Supervisory Control and Data Acquisition
SERT	System Emergency Restoration Team
T&D	Transmission and Distribution

Emergency Response Plan

Annex D – Severe Weather Response

1.0 Purpose

The purpose of LUMA's Storm and Hurricane Response Annex (Annex D) is to establish a comprehensive operational and tactical framework to respond to major outage restoration events caused by the effects of severe weather. The Annex defines the operational roles and responsibilities of the LUMA Crisis Management Committee (CMC) and LUMA Emergency Operations Center (LEOC) before, during, and after severe weather. This annex assists the LUMA Emergency Roster (LER) in taking the necessary actions to protect safety, maintain continuity of service, and protect lives and property. It also provides the Puerto Rico Energy Bureau (PREB), the Puerto Rico Public-Private Partnerships Authority (P3A), the Department of Economic Development and Commerce (DEDC), the Negotiated for Emergency Management and Disaster Management (NMEAD), and other agencies with guidance on how LUMA responds to and prioritizes power outages with the general principles of Community Lifelines. This Annex helps define the operational, logistical, and administrative procedures carried out before, during, and after Puerto Rico and the Transmission and Distribution (T&D) System are impacted by severe weather.

2.0 Scope

This Annex applies to Outage Events (OE) caused by severe weather and related hazards that result in, or could result in, a major impact on the integrity of the T&D System or disruption of electrical service to LUMA customers. Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

3.0 Situation and Assumptions

3.1 Situation

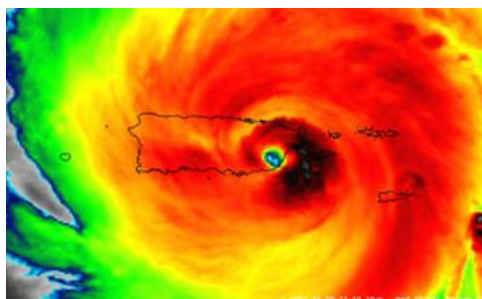
Severe weather poses a threat to life and property. A major severe weather incident is likely to have significant impacts on the T&D System. Puerto Rico is vulnerable to a variety of severe weather incidents such as hurricanes and tropical storms, flooding, storm surge, thunderstorms, heavy rain, landslides, lightning, windstorms, wildfires, hailstorms, and tornadoes.

On September 20, 2017, Hurricane Maria entered the southeastern part of Puerto Rico and crossed the entire island with winds of 155 mph, and exited via the northwestern coast, leaving unprecedented catastrophic damage throughout the island. This hurricane caused very serious damage to the T&D System, causing a total blackout and collapse of communications.

Emergency Response Plan

Annex D – Severe Weather Response

Figure 1: Hurricane Maria Making Landfall in Puerto Rico.



The efficiency of this Annex is based on LUMA's commitment to prepare and implement the procedures described in this Annex and the Emergency Response Plan (ERP) – Base Plan. Executing the appropriate responses to affect fast and secure recovery depends on the scalability of the Annex. The number of clients affected, and the magnitude of a Major Outage Event varies, but the operating concept remains the same.

LUMA takes a proactive approach to strengthen the T&D System throughout Puerto Rico, to withstand major weather events. Because of this, major hurricanes like Maria are less impactful for the T&D System that supplies power to LUMA customers and critical areas. Due to the configuration of Puerto Rico's T&D grid and the location of generation, LUMA focuses on strengthening critical T&D lines to distribute power to key load centers as well as the reconstruction of critical system substations.

3.2 Assumptions and Considerations

The ERP-Base Plan, Section 4, describes the general assumptions and considerations. Identified below are additional assumptions and considerations regarding response to severe weather, which should include, but are not limited to, the following:

- Puerto Rico is highly vulnerable to the dangers posed by storms and hurricanes which negatively affect the T&D System infrastructure that LUMA operates.
- Severe weather can occur at any time of the day or night, on weekends or holidays, with little or no warning.
- The succession of events in an emergency or disaster is not predictable.
- Operational plans may require modifications to meet the requirements of the incident at hand.
- Severe weather can involve high winds and rain, creating an environment for flooding and landslides. For more information on these hazards, refer to the Hazards Assessment (Appendix A).
- An emergency may be declared in advance of an impact if the information indicates that such conditions are developing or are probable.
- Weather conditions (i.e., impassable roads, and downed communication systems) may hinder the response and restoration actions.
- LUMA has a duty and responsibility to maintain, distribute, and implement the ERP.

Emergency Response Plan

Annex D – Severe Weather Response

- The response to the negative effects of severe weather should be guided by the principles of the National Response Framework (NRF), National Incident Management System (NIMS), and the Incident Command System (ICS).
- The impact of emergency events on the energy infrastructure operated by LUMA depends on the extent and severity of the damage.
- Assessment, prioritizing, and scheduling of repairs are conducted throughout the response and restoration process.

4.0 Concept of Operations

In the event of interruptions due to a storm or hurricane that results in or may result in damage to facilities or power outages, LUMA promptly assesses the impacts on the T&D infrastructure and takes the necessary steps to mitigate the cascading effects of the ongoing power outages and implement restoration protocols. To ensure the integration of response, the incident response levels of the Puerto Rico Emergency Management Bureau (PREMB), and the LUMA event classification types are identified in the ERP - Base Plan.

During a severe weather event that is forecasted as a potential incident (i.e., a hurricane), an Activation Level is chosen before an Event Type.

4.1 Activation

The efficient activation of emergency response personnel is critical to the success of any response. Storms and hurricanes can affect LUMA operations outside daily steady-state operational boundaries. LUMA will activate the CMC to appoint an Incident Commander (IC) during significant emergencies that result in a substantial impact on T&D operations or a state/federally declared island-wide emergency. The IC is responsible for activating the Command Staff and analyzing the severity and size of the incident together to determine if the severe weather event triggers the activation of the LEOC.

LUMA assesses the impact on the T&D infrastructure. After the assessment, LUMA takes the necessary actions to restore Community Lifelines as rapidly as possible and minimize its impact on the citizens of Puerto Rico. LUMA utilizes Event Types (Base Plan Appendix A) for major events and phases of response.

Forecasted Potential Incidents vs. No-Notice Incidents

The process of determining the Activation Level or an Event Type may be dependent on what triggers the activation: a forecasted potential incident or a non-notice incident. See Appendix A of the ERP – Base Plan for the Activation Level Chart and the Event Type Chart, respectively.

Forecasted Potential Incidents and Scheduled Events

Forecasted potential incidents allow a preparedness window before the incident to position the organization for a response. Commonly, these incidents are atmospheric and forecasted (i.e., hurricanes). For these types of incidents, the Activation Level should be assigned first, followed by assigning an Event Type, if required. For a hurricane, an Event Type may be designated once the incident starts to negatively affect any part of the T&D System.

Emergency Response Plan

Annex D – Severe Weather Response

No-Notice Incidents

A no-notice incident occurs unexpectedly or with minimal warning. No-notice incidents do not provide emergency responders sufficient time to prepare for the specific event. The determination of an Event Type is needed before the establishment of the Activation Level during a non-notice event.

4.2 LUMA Event Types

The Event Type depends upon the analysis of the expected severity and complexity of an event and is drawn from the consideration of numerous factors: The LUMA Event Types and their anticipated operating conditions are described in Section 6 of the ERP – Base Plan and Section 7 of Annex A.

4.3 Restoration Operations

Restoration Operations conducted in response to an event impacting LUMA's distribution and transmission scheme are the responsibility of the Planning and Dispatch Team. Directives from the LEOC follow the LUMA Restoration Strategy and the Concept of Operations, both of which can be found in full in the Major Outage Restoration Annex (Annex A, Sections 6 and 7).

4.3.1 Approach

During an emergency, LUMA safely and efficiently assesses the damage to the T&D infrastructure and completes critical repairs. The LUMA Regional Operations Command Centers (ROCCs) report to the Division Branch Director(s), who directs the response of field teams.

The transition from the emergency stage to the initial response stage takes place during the time when (1) restoration personnel in the field can be deployed without unacceptable safety risks due to the continuation of hazardous conditions and (2) when the potential additional damage to the T&D System is low in proportion to the expected level of damage already suffered.

The start of the initial response stage may be different for specific areas where the effect of the emergency caused other adverse conditions, such as additional debris and limiting access to damaged areas. After the passage of a storm or hurricane, three important pieces of information must be collected to allow for an effective restoration:

- Number of customers out of service.
- Extent of damage to the T&D infrastructure.
- Labor (along with their availability) to repair the damage.

After an interruption to the T&D System and activation of the ERP, the restoration of electrical services is carried out by following four basic steps:

- 1) Make Safe Protocols.
- 2) Damage Assessment (DA) (preliminary and detailed assessments).
- 3) Prioritization of restoration.
- 4) Execution of tactical restoration operations.

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4.3.2 Mobilization of Personnel

When the threat of a storm or hurricane is imminent, preventive deployment of personnel can facilitate a rapid response. The most critical component is the ability to be flexible, expanding and retracting to optimal levels as the threat becomes more secure. An anticipated major outage requires an appropriate mobilization of personnel to respond to and recover from a storm or hurricane in an efficient and timely manner.

- The IC is responsible for notifying the Command Staff of LEOC activations.
- The IC may activate other roles based on incident developments and the Event Type.
- Notifications are made in accordance with the LUMA Major Outage Performance Metrics.

4.3.3 Damage Assessment

DA is a key component of restoration operations. The DA process utilizes DA Teams, or additional support as needed, to physically inspect and report damages on overhead primary, secondary, transmission, and substation assets. Assessment personnel are managed through the DA Branch, and they provide access to their reports to the Planning & Intelligence (P&I) Section, the Operations Section, and the Regional Commanders, who determine resources and equipment requirements to make the repairs and restore services. The order of DA evaluation is based on the restoration priority list and interconnection of assets.

4.3.4 Restoration

LUMA follows restoration processes safely and efficiently to repair damage and restore electrical service. These restoration protocols are designed to restore power to as many customers as possible, in the shortest possible time, and the safest manner possible.

Field DAs and repairs can begin when:

- Field personnel can be deployed without safety hazards or dangerous conditions.
- The potential for additional damage to the electric system is low.

Prioritization

Refer to Section 4.1 of Annex A for specific details about outage restoration priorities. Outages are prioritized for considerations of security conditions, type, and amount of damage to the system, Community Lifelines, type of customer, and the number of customers affected. LUMA focuses restoration efforts on restoring services to critical facilities such as hospitals, police departments, fire departments, and other public health and safety facilities as a matter of priority, as warranted. LUMA must make prudent decisions that have the greatest benefit to the overall stability of the T&D System and the greatest benefit to all customers.

Priority restoration cannot be guaranteed. Therefore, LUMA implements specific communication outreach programs to critical facilities, municipal governments, and key account customers to alert them to adequately prepare for potential prolonged power outages and to provide information and updates on LUMA's preparedness and restoration activities.

LUMA must assess emergency and life-threatening conditions (public safety hazards, downed wires reported by emergency services) before restoration efforts can begin.

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Situational Assessment

LUMA completes an evaluation of the system through the Supervisory Control and Data Acquisition System (SCADA), Outage Management System (OMS), and reported outages from LUMA customers. When a type of event classification has been determined, staff are assigned according to the structure of the LUMA identifiers.

Please refer to Section 4 of Annex A regarding how activities are assigned, evaluations documented, repairs made, and service restored.

5.0 Estimated Time of Restoration

Potential damage from severe weather that could cause the power grid to fail must be investigated upon notification of an impending emergency. Severe weather hazards must be considered before providing an Estimated Time of Restoration (ETR). The lifespan of a storm may prolong the ETR, given the unpredictable nature of these phenomena.

Subsequently, timely and accurate ETR must be provided to all LUMA customers and stakeholders. Providing an accurate ETR is a top priority of LUMA's overall restoration process.

The flexibility of an event requires a strategic, deliberate, planning-oriented posture, which allows a utility to plan resource needs, operational periods, strategic objectives, staff fatigue, and external communications. The expected actions related to ETRs are found in Annex A of the ERP, Section 8.

6.0 Organization

This section describes the key functions of the various components and positions of the organizational structure. An orderly and consistent flow of information between operations, communications, logistics, and partner support organizations is necessary in times of emergency events. The organizational charts indicating the lines of authority and the interrelationship between the organizational groups can be found in Appendix A of the Major Outage Restoration Annex (Annex A).

6.1 LUMA Leadership

Before and during major storm and hurricane events, LUMA leadership maintains an ongoing and open dialogue to discuss and share information about an impending emergency event that may affect the power grid. This proactive dialogue ensures full situational awareness among leadership teams and provides a platform to facilitate discussions on the possible exchange of staff resources and other support functions between entities.

This approach provides the mechanism for consistent messages to employees, customers, and other external stakeholders. With the threat of a major weather event or another emergency, the LUMA leadership team and the CMC activate the applicable functional areas.

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6.2 LUMA Emergency Roster

The organizational structure of LUMA during the restoration of the outage can be found in Appendix A of Annex A. Refer to the LUMA ERP – Base Plan for a list of roles and responsibilities.

7.0 Direction, Control, and Coordination

This annex provides the framework for a systematic response when severe weather emergencies arise, and emergency restoration operations are required. Determining an appropriate response is based on multiple factors, including:

- DAs
- Determining the type of event
- Coordinated response using the ICS.

The ERP, annexes, and appendices identify the framework for responding to, and recovering from, natural or man-made events. For additional information related to direction, control, and coordination, see the ERP – Base Plan, Section 8.

8.0 Communications

LUMA provides timely, accurate, and consistent communications before, during, and following a severe weather event. Emergency communications may include alerts and warnings from verified emergency notifications. Communications may include information about protective measures, LUMA response and restoration status, available assistance, and other matters affecting LUMA's response and recovery.

The LUMA Public Information Officer (PIO) communicates timely and accurate information. LUMA communicates information through a variety of methods, including but not limited to the following:

- LUMA's website and customer app
- News media
- Social media, including the use of Twitter, Facebook, and Instagram, among others.

9.0 Demobilization

Demobilization is the orderly, safe, and efficient return of an incident resource to its original location or state. The IC is responsible for initiating the demobilization process. Demobilization planning is an ongoing process that begins as soon as the response begins. This facilitates accountability to ensure efficient resource management.

Tracking resource requirements and releasing them when no longer needed to support the response is essential for accountability. This helps reduce resource losses, reduce operating costs, and ensure that resources are available for other activities and assignments as needed.

The Planning & Intelligence Section Chief (PSC) develops demobilization plans and ensures they are implemented as instructed by the IC. Emergency response operations can be completely demobilized when:

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- 1) All jobs related to storms or hurricanes are reassigned.
- 2) Centralized Dispatch is managing events.
- 3) All non-regional teams are dispatched (released).

10.0 Training and Exercises

Successful response to emergency events requires a Company-wide commitment to preparedness that is integrated into LUMA's daily operations, not just during emergency events. Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, The Emergency Preparedness Department staff, and PREMB personnel; and maintaining updated contact information of personnel and organizations that may assist in LUMA's restoration efforts. Every employee is expected to participate in preparedness activities throughout the year.

The Emergency Preparedness Department maintains the ERP-related training database and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities, and to support the safe and reasonably prompt completion of all required actions during ERP activations.

The LUMA exercise program follows guidelines from the Homeland Security Exercise Evaluation Program (HSEEP) developed by the Federal Emergency Management Agency (FEMA). The HSEEP methodology is defined and implemented using seven exercise types, broken into the categories of discussion-based exercises and operations-based exercises. LUMA employs a variety of exercise types based on exercise goals and objectives. The goal of conducting exercises is to enhance training, improve familiarization, evaluate, or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

11.0 Annex Development and Maintenance

This Annex is a living document. The development and maintenance of this Annex are in conjunction with the LUMA ERP – Base Plan. Proposed changes should be sent to the Emergency Preparedness Department for approval and inclusion.

Please reference the LUMA ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

12.0 Terms

- 1) **Atmospheric Disturbance** – Area of bad weather, accompanied by heavy rains and winds.
- 2) **Bulletin** – Information message issued by the National Weather Service (NWS) of Puerto Rico.
- 3) **Emergency or Emergency Event** – Any outage event, as per the T&D Operations Management Agreement (OMA); declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LUMA Emergency Roster.
- 4) **Flash Flood** – Flash floods are the result of intense storms dropping large amounts of rain within a short period of time or dam failures. Flash floods occur with little or no warning and can reach a full

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peak in only a few minutes.

- 5) **Flood Warning** – Is a forecast of impending floods advising of the expected severity of flooding (minor, moderate, or major), the affected river or body of water, and when and where flooding will begin.
- 6) **Fujita - Pearson Tornado Scale** – A descriptive scale categorizing tornadoes by intensity, relating intensity to damage potential.
- 7) **Hurricane** – Storm with a defined circulation and intensity in which sustained winds reach or exceed 74 miles per hour.
- 8) **Hurricane, Storm, or Tropical Depression Warning** – Statement transmitted when a hurricane, storm, or tropical depression is expected to hit an area within the next 24 hours.
- 9) **Hurricane, Storm, or Tropical Depression Watch** – Statement transmitted when the hurricane, storm, or tropical depression approaches and threatens specific coastal areas or locations in the next 36 hours or less.
- 10) **Imminence of Hurricane, Storm, or Tropical Depression** – Indicates that the hurricane, storm, or tropical depression will hit Puerto Rico.
- 11) **LUMA Emergency Roster** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation. Includes those in the EOCs and those in the field.
- 12) **Severe Thunderstorm Warning** – Issued by the NWS when a severe thunderstorm has been sighted or indicated by weather radar.
- 13) **Severe Thunderstorm Watch** – Issued by the NWS Service when the weather conditions are such that a severe storm (damaging winds 58 miles per hour or more, or hail 3/4 of an inch in diameter or greater) is likely to develop.
- 14) **Tropical Cyclone** – Includes hurricanes, tropical storms, and tropical depressions. These storms are born in the tropical and subtropical Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico. Tropical cyclones are classified mainly by wind speed.
- 15) **Tropical Depression** – A tropical low-pressure system where the maximum sustained surface wind (1-minute mean) is 33 knots (38 mph) or less.
- 16) **Tropical Disturbance** – Organized convection originating in the tropics/sub-tropics with a non-frontal migratory character, sustained for twenty-four hours or more.
- 17) **Tropical Storm Warning** – A warning that tropical storm conditions are expected in a specified area within twenty-four hours.
- 18) **Tropical Storm Watch** – Tropical storm conditions pose a threat to a specified area generally within thirty-six hours.
- 19) **Tropical Storm** – A tropical low-pressure system in which the maximum sustained surface wind (1 minute mean) ranges from 34 to 63 knots (39 to 73 mph).
- 20) **Warning** – Issued to forewarn an event that is imminent or has a high probability of occurring.
- 21) **Watch** – Term used as an alerting procedure for an event that may occur.
- 22) **Wind Chill** – Wind chill is a term used to describe the rate of heat loss on the human body resulting from the combined effect of low temperature and wind. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and, eventually, the internal body temperature.

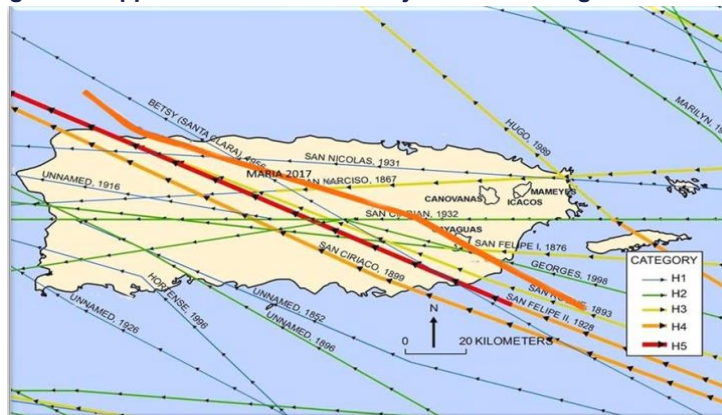
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Appendix A: Hazards Assessment

Puerto Rico is in the path of storms and hurricanes, which develop in the Atlantic, crossing the Caribbean, and many affect the United States. Hurricane season begins on June 1 and ends on November 30 of each year. Hurricanes and tropical cyclones have historically caused the most damage and loss of life in Puerto Rico.

Figure 1: Appendix A: Hurricane Trajectories Through Puerto Rico.



Hurricanes are tropical cyclones that develop in the tropics. Tropical cyclones can be defined as a closed circulation that develops around a center of low pressure in which winds rotate counterclockwise in the northern hemisphere. Hurricanes, tropical cyclones, and rainstorms can create a variety of hazards.

Saffir-Simpson Scale

The Saffir-Simpson hurricane wind scale establishes categories from 1 to 5 according to the intensity of the hurricane. The scale provides examples in the United States of the different types of damage and impacts caused by winds depending on their intensity. The maximum wind speed on the surface is expressed by one (1) minute of sustained wind at the standard observation base of 33 feet over unobstructed areas.

Table 1: Appendix A: Saffir-Simpson Scale Description.

Category	Winds (mph)	Damage
1	74-95	Some damage: Large branches of trees will snap, and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110	Extensive damage: Moderate- Power outages and blackouts are expected to last several days or weeks. The supply of drinking water could be scarce due to the failure of filtration systems.

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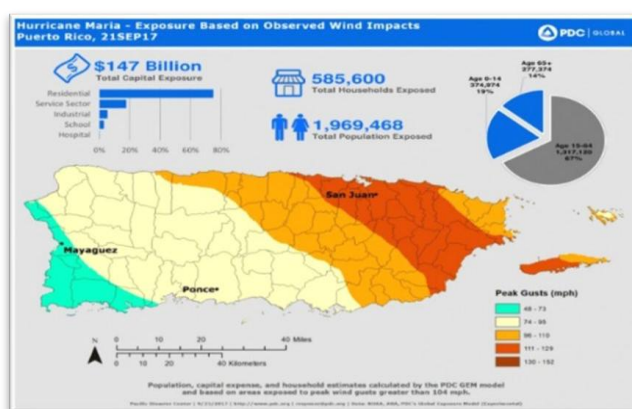
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Category	Winds (mph)	Damage
3 (major)	111-129	Devastating damage: Water and electricity may become scarce for several days or weeks after the storm passes.
4 (major)	130-156	Catastrophic damage: Blackouts can last for weeks and even months. In the long run, the shortage of safe drinking water will increase human suffering. Many places in the area will remain uninhabitable for weeks and months.
5 (major)	> 157	Catastrophic damage: Blackouts can last for weeks and even months. The scarcity of safe drinking water will increase human suffering. Many places in the area will remain uninhabitable for weeks and months.

High Winds

A tropical cyclone can produce winds of more than 157 miles per hour. Hurricane-force winds can damage the distribution and transmission grid, as well as buildings, and destroy mobile homes and other properties. Debris, such as signs, roofing, siding, and other items, become airborne debris, causing additional injuries from hurricane damage. In addition, high-rise buildings deserve special consideration; wind pressures in the upper portions of high structures can be much higher than those on the ground floor. High-rise bridges in the areas become particularly vulnerable to strong winds. Not only could they experience wind-related structural problems, but they could also affect evacuation times. Winds are the biggest cause of material damage to the interior of the coast.

Figure 2: Appendix A: Hurricane Maria - Exposure Based on Observed Wind Impacts.



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Thunderstorms and Floods

Annual precipitation for Puerto Rico ranges from 172 inches near El Yunque National Forest (located in the Sierra de Luquillo mountains) in the eastern part of the island to less than 30 inches at Ponce in the southwest. Much of the rainfall in the wet season (May through October) derives from tropical cyclones (hurricanes and tropical storms) and easterly waves, which move from east to west, while high sea surface temperatures can also trigger local thunderstorm activity. In the dry season (November through April), rainfall is caused by cold fronts moving from west to east.

Due to Puerto Rico's geography, rains cause runoff that can quickly cause unexpected flooding by rivers, streams, or storm surges when atmospheric phenomena arrive. These floods can cause serious damage to critical infrastructure and property and cause loss of life.

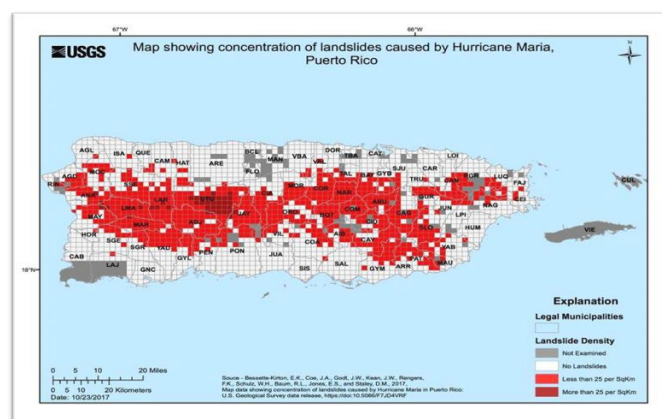
Figure 3: Appendix A: Annual Yearly Precipitation in Puerto Rico (2010-2024).

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
2014	2.54	3.50	0.51	3.15	8.89	0.77	3.57	9.79	6.28	3.11	11.47	5.49	59.07
2015	4.96	3.27	1.50	1.38	2.28	2.11	1.61	5.93	4.30	1.77	8.72	3.47	41.30
2016	1.60	3.88	2.22	10.02	7.16	2.74	5.10	5.14	4.91	6.39	17.65	4.30	71.11
2017	1.89	1.70	6.04	6.25	4.53	3.93	6.66	7.68	15.79	6.61	10.16	3.33	74.57
2018	5.18	5.18	2.74	2.85	5.00	3.12	4.37	6.29	3.05	5.67	5.68	2.25	51.38
2019	2.10	2.17	1.03	3.05	1.97	3.01	6.72	4.38	9.54	2.81	4.36	5.78	46.92
2020	9.08	8.23	4.95	4.27	1.69	3.90	10.42	3.49	5.02	6.50	7.61	4.68	69.84
2021	2.12	3.07	2.07	2.18	4.11	10.49	5.32	2.73	4.48	5.96	2.79	5.67	50.99
2022	2.73	11.69	3.44	2.92	1.09	1.64	8.13	9.73	13.54	6.61	6.43	3.72	71.67
2023	5.63	2.58	2.25	5.49	4.00	2.30	4.01	4.37	3.05	9.73	5.06	7.72	56.19
2024	3.57	5.79	2.89	9.14	11.54	3.47	4.77	9.16	3.45	9.19	12.18	6.59	81.74

Landslides

Landslides include all movements of soil, rock, or debris because of falling, sliding, or flowing. The triggering cause may be heavy rainfall or seismic activity. An untimely occurrence of a large earthquake during or soon after a sustained period of moderate to heavy rainfall could produce a landslide problem of monumental proportions. Large landslides across the island can happen, isolating communities, delaying response activities, limiting the provision of essential community services (Community Lifelines), and the restoration of the electricity transmission and distribution system.

Figure 4: Appendix A: Concentration of Landslides Caused by Hurricane Maria.



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Appendix B: H-136 Timeline

Note that the table below is to be used as a guide only and can be adapted based on the projected impacts of the storm.

Table 1: Appendix B: H-136 timeline checklist.

Section	Group/Unit	Task
Pre-storm – 136 hours		
EP	EP	Coordinate weather updates with the National Weather Service (NWS) forecast office in San Juan regarding potential tropical weather threats.
EP	EP	Update CMC members after receipt of weather advisories, as required.
EP	EP	Request IT to verify equipment readiness within the LEOC; including radios, telephones, and laptops.
EP	EP	Validate “On Call” LER personnel availability.
EP	EP	Create the event in WebEOC production and include the folders for incident documentation.
Pre-Storm - 120 Hours - 5 Days		
Continue actions from the previous operational period as needed.		
EP	EP	Coordinate weather updates with the NWS regarding potential tropical weather threats.
EP	EP	Update CMC members after receiving a confirmed weather threat. Using Genesys, send notifications using text and email for a scheduled TEAMS session.
CMC	Chair	Host a CMC meeting to evaluate potential emergency events to activate the LEOC & appoint an Incident Commander (IC).
CMD	IC	IC notifies EP to activate the “On Call” LER and any other position in the Command & General Staff.

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Section	Group/Unit	Task
EP	EP	“On Call” LER and any other Command Staff and Section Chiefs are activated.
CMD		LEOC Activation.
CMD	LNO	Notify partner agencies of LEOC activation. Concurrently notify Regulatory Department of activation. Regulatory sends email to regulatory agencies.
PLAN	PSC	Coordinate conference calls with local NWS Offices for weather updates.
PLAN	PSC	Generate preliminary Damage Prediction.
CMD	IC	Determine initial objectives, which should include life, safety, property protection, environment and stabilization.
CMD	IC	Determine staffing needs based on the preliminary damage predictions. Notify additional selected personnel via telephone, TEAMS or WebEOC, sending a text and email with acknowledgment of receipt.
CMD	CMD	IC & staff define Incident Type + Activation Level.
OPS	OSC	Based on preliminary damage predictions evaluate the need to proceed with prepositioned contracts.
LOGS	Contract Adm	Make calls to prepositioned contracts points of contact to alert them of a possible notice to proceed.
CMD	PIO	Disseminate pre-incident preparedness messaging via LUMA social media platforms.
Pre-Storm - 96 Hours - 4 Days Continue actions from the previous operational period as needed.		

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Section	Group/Unit	Task
LOGS	LSC	Confirm material stock levels against the preliminary damage prediction.
OPS	ROCC	Validate ROCC personnel availability.
LOGS	LSC	Conduct analysis of internal resources to identify status and availability based on preliminary damage prediction.
LOGS	FACL	Activate LUMA-signed MOUs to relocate ROCCs susceptible to floods.
OPS	OSC	Prepare staffing plans, schedules, and briefing for ROCCs as dictated for the preliminary damage predictions, event type and activation level.
Pre-Storm - 72 Hours - 3 Days		
Continue actions from the previous operational period as needed.		
PLAN	PSC	Coordinate and participate in weather updates with NWS.
PLAN	PSC	Refine preliminary damage prediction.
LOG	LSC	Validate material stock levels against the refined preliminary damage prediction and Event Type.
OPS	OSC	Develop staffing roster for continued operations periods and disseminate to staff.
CMD	IC	In coordination with General Staff, discuss possible impacts on life safety, environment, operations, and infrastructure.
CMD	IC	Notify internal and external staff and partners, and stakeholders of the LEOC Activation Level.
CMD	PIO	Verify the personal preparations plan has been engaged and ensure all personnel have been provided with release time to complete.

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Section	Group/Unit	Task
CMD	PIO	Develop external communication for customers.
OPS	OSC	Ensure the accuracy of the LEOC Staffing Rosters for the next operational periods.
OPS	T&D System Operations Branch Director	Review the status of Generation operations with providers.
OPS	T&D System Operations Branch Director	Evaluate the T&D System and OMS operational status.
Pre-Storm - 48 Hours - 2 Days		
Continue actions from the previous operational period as needed.		
CMC	IC	Coordinate with the LEOC Command to reassess Activation Level and Event Type.
PLAN	PSC	Establish a battle rhythm and provide it to LEOC Command Staff. Post in LEOC throughout WebEOC.
CMC	LNO	Brief ESF-12 partners on the LEOC Activation Status.
CMD	CX & KA Specialist	Performs the outbound telephone calls to LPE Customers.
CMD	CX & KA Specialist	Ensure KA representatives conduct daily updates with government officials, partner agencies with critical facilities, and stakeholders.
OPS	OSC	Coordinate with field operations that personal protective equipment has been provided to field crews.
LOGS	LSC	Address possible shelter (housing/lodging) operations and logistical needs.
LOGS	RESL	Consider demobilization planning with OPS based on current assets and projected needs.

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Section	Group/Unit	Task
LOGS	LSC	Identify types of resources needed for the anticipated event in coordination with OPS.
Pre-Storm – 24 Hours – 1 Day		
Continue actions from the previous operational period as needed.		
CMD	PIO	Continue to focus on internal and external information campaigns, specifically on reinforcements of protective actions.
CMD	IC	Finalize planning pre-event protective action requirements.
OPS	OSC	Evaluate the T&D System Status, the OMS and report findings and provide information to Plans for the Pre-Event Stage Reports.
CMD	CX & KA Specialist	Follows up on LPE customers' requests by leveraging their established relationships with Municipal Officials and local Municipal Offices for Emergency Management ("OMME").
OPS	OSC	Coordinate suspension of daily operations for the next operating period, including landfall.
LOGS	COML	Verify communication equipment Alternate and Contingency functions post-event to field operations.
Landfall - +0 to +48 Hours		
Continue actions from the previous operational period as needed.		
OPS	T&D System Operations Branch Director	Assess SCADA status following the Operations Continuity Plan TOC's and DOC's.
CMD	PIO	Within the first 6 hours of the start of the Initial Response stage For type 3 Events: Provide available information to the public via customer representatives, IVR systems, and websites.

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Section	Group/Unit	Task
		For Type 1 or 2 Events: Provide a public statement indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites.
CMD	PREB / P3A LNO	Within the first 6 hours of the start of the Initial Response stage For type 3 Events: Notify regulatory authorities of the start of the initial response stage and the expectation that the initial response stage will last 48 hours or less. The notification to regulatory authorities will also state what LUMA has defined as the approximate start of the restoration stage. For events expected to last 48 hours or less, the notification may be via IVR. For Type 1 or 2 Events: Indicate that it will be a multi-day event (i.e., greater than 48 hours). The notification shall be made to regulatory authorities and will state the start of the initial response stage and when LUMA anticipates the start of the restoration stage.
CMD	LNO	Forward PREB/P3A Reports to ESF 12 partners.
CMD	IC	Coordinate all approved data and information with Unified Command, if established.
PLAN	PSC	Deploy DA Teams, as needed.
OPS	PRG	Compare DAs and OMS reports; review with LOGS and CMD for response planning and reporting requirements.
OPS	FOBD	Compile response data regarding staffing status, communications availability, and safety concerns during operational briefings.
CMD	SOFR	Re-iterate through safety messages that measures are being followed; resource management updates are to be provided to CMD.
PLAN	DAGBD	Collect, analyze, and distribute DA reports in conjunction with LOGS and PLAN.
FIN	T&C Unit Leader	Ensure reporting and tracking of all damage-related costs are being conducted.

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Section	Group/Unit	Task
FIN	Cost Recovery Unit Leader	Ensure cost tracking procedures are being adhered to.
CMD	IC	Activation Level is re-assessed.
CMD	PIO	Within the first 12 hours of the start of the Initial Response stage For type 3 Events: Prepare a statement for the press that includes known ETRs for the next upcoming news cycle and communicate with relevant municipal and government officials. For Type 1 or 2 Events: Prepare a press release for issuance in time for the next upcoming news cycle and communicate with relevant government agencies.
CMD	PREB / P3A LNO	Within the first 12 hours of the start of the Initial Response stage For type 3 Events: Provide regulatory authorities with an approximate global ETR and any available regional ETRs, where known.
LOGS	LSC	Coordinates with Finance and Purchasing regarding contracts.
CMD	PIO	Within the first 18 hours of the start of the Initial Response stage For type 3 Events: Provide approximate ETRs for each region, where known and affected, and make them available to the public via customer representatives, IVR systems, and websites.
CMD	CX & KA Specialist	Continue conference calls with municipal officials.
CMD	PREB / P3A LNO	Within the first 24 hours of the start of the Initial Response stage For Type 1 or 2 Events: Notify regulatory authorities which areas sustained the most damage to the electric system.
CMD	PIO	Within the first 24 hours of the start of the Initial Response stage, For type 3 Events: Consider issuing a press release for the upcoming news cycle based on conditions.

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Section	Group/Unit	Task
		For Type 1 or 2 Events: Issue a press release(s) for upcoming news cycles with the information on what areas sustained the most damage to the electric system.
CMD	PREB / P3A LNO	Within the first 36 hours of the start of the Initial Response stage For Type 1 or 2 Events: For storms with an expected initial response stage of five days or less, provide regulatory authorities with an approximate global ETR.
CMD	PIO	Within the first 36 hours of the start of the Initial Response stage, For Type 1 or 2 Events: Make ETR information available to the public via customer representatives, IVR systems, and websites.
CMD	PREB / P3A LNO	Within the first 48 hours of the start of the Initial Response stage For Type 1 or 2 Events: For storms with an expected initial response stage of five days or less, provide regulatory authorities with an approximate global ETR.
CMD	PIO	Within the first 48 hours of the start of the Initial Response stage, For Type 1 or 2 Events: Make ETR information available to the public via customer representatives, IVR systems, and websites.
LOGS	LSC	Establish contact with the Regional Logistics groups to ensure processes and protocols of restoration operations are identified and updated accordingly.
LOGS	LSC	Identify possible Federal support requirements
CMD	IC	Update operations and discuss transitioning into a Restoration Stage based on operations, DAs, and ETRs.
CMD	PIO	Within the first 6 hours of the start of the Restoration stage For type 3 Events: Provide available information to the public via customer representatives, IVR systems, and websites.

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Section	Group/Unit	Task
		For Type 1 or 2 Events: Provide a public statement indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites.
CMD	PREB / P3A LNO	Within the first 6 hours of the start of the Restoration stage, notify regulatory authorities of the start of the restoration stage.
CMD	PIO	Within the first 12 hours of the start of the Restoration stage For Type 1 or 2 Events: Prepare a press release for issuance in time for the next upcoming news cycle and communicate with relevant government agencies.
CMD	CX & KA Specialist	Within the first 12 hours of the start of the Restoration stage For Type 1 or 2 Events: Continue post-storm municipal conference call(s) unless an alternative municipal contact method is more appropriate. Communicate information such as system damage, outages, restoration status, etc., with affected municipal and elected officials as appropriate.
CMD	PIO	Within the first 24 hours of the start of the Restoration stage For type 3 Events: Make ETR information available to the public via customer representatives, IVR systems, and websites For Type 1 or 2 Events: Continue issuing a press release(s) for upcoming news cycles with approximate regional and/or municipality ETRs. Update customer representatives, and IVR systems.
CMD	PREB / P3A LNO	Within the first 24 hours of the start of the Restoration stage and beyond, for Type 2 & 1 events, provide regulatory agencies and the public with approximate regional and/or municipality ETRs. Update customer representatives, and IVR systems.

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Annex E – Cybersecurity and Terrorism

LUMA Energy

NEPR-MI-2019-0006

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Tables & Figures

Table 1: Potential Motivators ranked by complexity of attack, potential operational impact, and probability of occurrence from a utility perspective. 6

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List of Acronyms

ACRONYM	DEFINITION
CEO	Chief Executive Officer
CMC	Crisis Management Committee
DA	Damage Assessment
EOC	Emergency Operations Center
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
MAA	Mutual Aid Agreement
MOA	Memorandum of Agreements
NIMS	National Incident Management System
OE	Outage Event
OMA	Operational Management Agreement
OMS	Outage Management System
P&I	Planning & Intelligence
PIO	Public Information Officer
PREMB	Puerto Rico Emergency Management Bureau
PSC	Planning & Intelligence Section Chief
SCADA	Supervisory Control and Data Acquisition
T&D	Transmission & Distribution

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Annex E – Cybersecurity and Terrorism

1.0 Purpose

The purpose of LUMA's Cybersecurity and Terrorism Annex (Annex E) is to establish an operational and tactical response to cyber and terrorist attacks. In addition to attacks, there is also a huge risk for these types of incidents to impact customers, facilities, and electrical lines. Today's modern utility systems rely heavily on high-speed communications and equipment, making the Transmission and Distribution (T&D) System more susceptible to major destruction or control by acts of terrorism.

Incidents resulting from cybersecurity and terrorist attacks present an immediate risk to the availability of energy infrastructure and control systems, having a detrimental effect on the economy, environment, and safety of Puerto Rican citizens. LUMA has also implemented a Cybersecurity Incident Response Plan (CSIRP), which is set into motion to detect, analyze, contain, eradicate, and recover from a cyber-event. This process is followed and—in conjunction with the Emergency Response Plan (ERP) described below to mitigate and respond to adverse impacts on business operations.

In recent years, such incidents have increased, raising situational awareness to enhance protective measures. Response considerations for terrorism and cybersecurity incidents must be considered, as the outcome can potentially be devastating to the entire transmission and distribution system, potentially affecting the whole island. Annex E helps define the operational, logistical, and administrative procedures that are carried out when responding to cybersecurity and terrorist attacks.

2.0 Scope

This Annex applies to an operational response triggered by cybersecurity or terrorism incidents that result in, or could result in, a major impact on the integrity of the T&D System or any other interruptions to electrical services to LUMA customers. The scope of this document is intended to serve as a guide for developing response actions and coordinating with all internal and external stakeholders and governmental agencies. Note that cyber-attacks increasingly look to compromise critical data or obtain access to confidential information that may not impact the integrity of the T&D system but obtain financial or other benefits through the use or sale of information. Similar emergency processes may be used to manage those types of events, although an operational field-level response may not be required.

Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

3.0 Situation and Assumptions

3.1 Situation

As the threat landscape continues to evolve, it must be recognized that cybersecurity and terrorist attacks can happen anywhere and anytime, with operational and brand impacts on targets. The intent and capability of malicious attacks continue to increase while threat actors continue to use advanced tactics to the detriment of the safe and secure operation of critical infrastructures.

Puerto Rico contains critical infrastructures that are potential targets for threat actors with the motivation to engage in cybersecurity or terrorist attacks. It is important to understand potential motivation factors

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(motivators) as these may indicate the scope and magnitude of the impact of an attack. Attack motivators include:

- Financial Gain
- Recognition & Achievement
- Insider Threat
- Political Motivation
- State Actors

The motivators above may lead threat actors to consider the electrical system or supporting technologies as viable targets. Throughout Puerto Rico, there are many critical infrastructure vulnerabilities that remain a potential target for cybersecurity or terrorist attacks. This infrastructure contains assets, networks, and systems vital to sustaining life and the environment on the island. The success of this Annex is predicated on LUMA's commitment to respond, as such incidents can interrupt the economic environment, public health, and security for all.

Execution of the appropriate responses to affect rapid and safe recovery is dependent upon the successful execution and scalability of the response plans in this Annex. The number of customers affected, and the magnitude of an Outage Event (OE) varies. However, the operational concept stays consistent. The level of recovery resources can be adjusted as needed.

3.2 Assumptions and Considerations

The Emergency Response Plan (ERP) – Base Plan and the Major Outage Restoration Annex (Annex A), describe the general assumptions and considerations. Identified below are additional assumptions and considerations regarding response to a cybersecurity or terrorist attack, which include, but are not limited to, the following:

- Cybersecurity and terrorism incidents can substantially disrupt not only security measures and the community's resilience but also electrical infrastructure and facilities.
- Terrorist attacks may or may not be preceded by a warning or a threat and may at first appear to be an ordinary power outage or system failure incident.
- Information on such incidents should be accurate, relevant, timely, and actionable.
- Threat or incident information should be shared with critical infrastructure customers.
- These incidents create challenges that are beyond normal day-to-day operational protocols, as well as tactical and operational requirements.
- Acts of terrorism and cybersecurity attacks may adversely impact the availability of local public safety personnel, equipment, facilities, and communications systems.
- Coordination with Federal and local law enforcement agencies are maintained and activated when the scope of the incident requires additional resources beyond LUMA's capabilities.

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- LUMA utilizes the National Incident Management System (NIMS) / Incident Command System (ICS).
- Cybersecurity and terrorism incidents or events will require federal notification and assistance.

Table 1: Potential Motivators ranked by complexity of attack, potential operational impact, and probability of occurrence from a utility perspective.

Attack Motivator	Complexity and Required Capability	Operational Impact	Probability
Financial Gain	Low – Moderate	Low	High
Recognition & Achievement	Medium	Low – Moderate	Low
Political Motivation	High	Low – Moderate	Moderate
Corporate Espionage	High	Moderate	Low – Moderate
Insider Threat	Low – Moderate	Moderate - High	Moderate
State Actors	High	High	Low – Moderate

4.0 Concept of Operations

In the event of a cybersecurity or terrorist attack that results in or may result in power outages, damage to facilities, or the compromise of critical or confidential data, LUMA promptly assesses the impacts on the T&D infrastructure or operations of the system. It takes the necessary steps to mitigate the cascading effects of the ongoing power outages and implement restoration protocols. To ensure response integration, the Puerto Rico Emergency Management Bureau's (PREMB) Incident Levels and LUMA's Event Types are utilized and identified in the LUMA ERP - Base Plan.

LUMA has also implemented a Cybersecurity Incident Response Plan (CSIRP), which is set into motion to detect, analyze, contain, eradicate, and recover from a cyber event. This process is followed and—in conjunction with the ERP—described below to mitigate and respond to adverse impacts on business operations.

There are five (5) Event Types and Activation Levels. Please reference the Base Plan – Appendix A. During a cybersecurity or terrorist attack that is most likely to be a no-notice event, an Event Type is chosen before an Activation Level.

4.1 LEOC Activation

The Chief Information Officer (CIO) is responsible for analyzing the severity, complexity, and size of the incident to determine if a cybersecurity event requires the activation of the LUMA Emergency Operations Center (LEOC). The CIO provides a recommendation through the CSO to activate the Crisis Management Committee (CMC). The CMC evaluates the threat and decides to activate the LEOC and appoint an Incident Commander (IC). IC is responsible for analyzing the severity, complexity, and size of the incident with the collaboration and input of the Command Staff to determine if a cybersecurity or Terrorism event requires the activation of additional personnel.

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4.1.1 No-Notice Incidents

A no-notice incident occurs unexpectedly or with minimal warning. No-notice incidents do not provide emergency responders enough time to prepare for the specific event. A cybersecurity or terrorist attack is generally an example of a no-notice incident. During a no-notice event, the determination of an Event Type is needed before the establishment of an Activation Level. This is done by the IC once designated by the CMC.

4.2 LUMA Event Types

The IC may deem it necessary to escalate or de-escalate an Event Type or Activation Level. This depends on changes in circumstances or actual conditions differing from projected conditions. The Event Types are as follows:

- Event Types 4 and 5 are Non-Emergency Events.
- Event Types 1, 2, and 3 are Emergency Events.
- Event Type 1 represents catastrophic emergency conditions.

The LUMA Event Types and their anticipated operating conditions are described in Section 6 of the Base ERP and Section 7 of Annex A.

4.3 Restoration Operations

Restoration Operations conducted in response to an event impacting LUMA's distribution and transmission scheme are the responsibility of the Planning and Dispatch Team. Directives from the LEOC follow the LUMA Restoration Strategy and the Concept of Operations, both of which can be found in full in the Major Outage Restoration Annex (Annex A, Sections 6 and 7).

4.3.1 Approach

Cybersecurity and terrorist attacks are geared toward breaking laws or being unlawful. Therefore, the response includes local and federal Law Enforcement. Following the dispatch notification regarding the cybersecurity or terrorist incident, an emergency shall be declared by the LUMA Energy Chief Executive Officer (CEO) or their designee.

4.3.2 Mobilization of Personnel

If it is not possible to effectively manage the attack or incident through normal operating procedures, the LUMA Emergency Roster (LER) is activated by the CMC at the direction of the LUMA CEO.

The IC shall subsequently establish an Event Type relative to the type and complexity of the event, resources that may be needed, and the expected impacts of the event. The LUMA Emergency Roster Structure (Appendix A in the ERP – Base Plan) is used to aid the IC in determining the staff required for emergency operations based on the Event Type. The IC then determines the required Command and General Staff needed to activate the LEOC.

LUMA may be required to institute a rapid deployment of local and federal resources in the safest manner possible, depending on the event classification. The most critical component to mobilizing personnel is the

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flexibility to adapt to optimum levels as the incident changes. Notifications are made in accordance with the LUMA Performance Metrics for the Mobilization of Personnel located within Annex A.

The transition from response operations to restoration operations is considered when the following are addressed:

- Mobilizing/demobilizing our organization and resources as directed by Law Enforcement.
- Overseeing the deployment and direction of our staff in the performance of the specific tasks associated with their respective function.
- Making available a well-trained workforce to staff our respective functions.
- Adhering to all applicable environment, health, and safety rules, regulations, and procedures.

After an interruption and activation of the ERP, the restoration of electrical services is carried out by following four basic steps:

- Responding with appropriate resources to address emergency and life-threatening conditions regarding.
- Damage Assessment (DA) (Rapid and Detailed Assessment)
- Prioritization of Restoration
- Disseminate timely and accurate communications of system conditions.

4.3.3 Damage Assessment

DA is a key component of restoration operations. The DA process utilizes DA Teams, or additional support as needed, to physically inspect and report damages on overhead primary, secondary, transmission, and substation assets. Assessment personnel are managed through the DA Branch, and they provide access to their reports to the Planning & Intelligence (P&I) Section, the Operations Section, and the Regional Commanders, who determine resources and equipment requirements to make the repairs and restore services. The order of DA evaluation is based on the restoration priority list and interconnection of assets.

4.3.4 Restoration

In accordance with Law Enforcement safety protocols for cybersecurity and terrorist attacks, LUMA teams and restoration crews are dispatched and respond with priorities identified within the ERP.

Prioritization

Outages are prioritized by:

- Considerations of safety conditions.
- Number of damages to LUMA facilities or infrastructure.
- Critical Community Lifelines, customer type, and the number of affected customers.
 - LUMA identifies a summary of Major Outage Event Performance Metrics located within the ERP, Annex A.

Situational Assessment

LUMA completes an evaluation of the system through the Supervisory Control and Data Acquisition System (SCADA), Outage Management System (OMS), and reported outages from LUMA customers. During an

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emergency outage incident or event, the LUMA Public Information Officer (PIO) provides situational awareness messaging to internal and external stakeholders.

4.3.5 Make Safe Protocols

During a minor or major event, the number of resources that are trained and readily available may be limited, and the demand could greatly exceed those available. LUMA ensures “make safe” actions are taken and acknowledges it may be necessary to contract for additional resources to support “make safe” and restoration activities.

5.0 Estimated Time of Restoration

A cybersecurity or terrorism incident that causes the T&D System to fail must be addressed as soon as possible. This type of OE may impede restoration operations depending on the criticality of system infrastructure, system sensitivity, and public health. Municipal emergency response resources assist LUMA in gaining detailed information regarding the status of affected T&D systems to provide status updates and reports to partners, as well as the community, throughout the incident.

The flexibility of an event requires a strategic, deliberate, planning-oriented posture, which allows a utility to plan resource needs, operational periods, strategic objectives, staff fatigue, and external communications. The expected actions related to Estimated Times of Restoration are found in Annex A of the ERP, Section 8.

6.0 Organization

This section describes the key functions of the various components and positions of the organizational structure. An orderly and consistent flow of information between operations, communications, logistics, and partner support organizations is necessary in times of OE. The organizational charts indicating the lines of authority and the interrelationship between the organizational groups can be found in Appendix A of Annex A.

6.1 LUMA Leadership

LUMA leadership maintains an ongoing and open dialogue to discuss and share information about the impact a cybersecurity or terrorism OE has on the T&D System. This dialogue ensures full situational awareness among leadership teams and provides a platform to facilitate discussions on the possible exchange of staff resources and other support functions between entities.

This approach provides the mechanism for consistent messages to employees, customers, and other external stakeholders. Following a cybersecurity or terrorism incident, the LUMA leadership team and the CMC activate the applicable functional areas as needed.

6.2 LUMA Emergency Roster

The organizational structure of LUMA during outage restoration can be found in Appendix A of Annex A. Refer to the LUMA ERP – Base Plan for a list of roles and responsibilities.

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7.0 Direction, Control, and Coordination

This Annex provides the framework for the systematic response when cybersecurity or terrorism incidents arise, and emergency restoration operations are required. Determination of an appropriate response is based on multiple factors which include a coordinated response utilizing the ICS and working together with stakeholders and various community or federal agencies.

A cybersecurity or terrorist incident may require assistance from off-island and federal agencies. Utilizing MAAs to receive these resources allows the operation and demobilization process to run smoothly. Tracking the release of resources no longer required to support the response is essential for accountability and managing incident control. This assists in reducing the loss of resources, limiting operating costs, and ensuring retention and availability of resources for other activities and assignments as needed.

The ERP and its Annexes and Appendices identify the framework to respond to and recover from natural or man-made events. For additional information related to direction, control, and coordination, refer to the ERP – Base Plan, Section 8.

8.0 Communications

LUMA provides timely, accurate, and consistent communications following a cybersecurity or terrorist attack. Emergency communications may include alerts and warnings from verified emergency notifications. Communications may include information about protective measures, LUMA response and restoration status, available assistance, and other matters affecting LUMA's response and recovery.

The LUMA PIO communicates timely and accurate information. LUMA communicates information through a variety of methods, including but not limited to the following:

- LUMA's website and customer app
- News media
- Social media, including the use of Twitter, Facebook, and Instagram, among others.

LUMA has established a consistent messaging platform flexible enough to allow for internal or external expansion, depending on the Activation Level and Event Type.

9.0 Demobilization

This Annex provides the framework for the systematic response to emergencies due to cybersecurity or terrorist attacks when emergency restoration operations are required. Determination of an appropriate response is based on multiple factors, which include:

- Approach to determining response efforts between roles and responsibilities.
- Response efforts in accordance with the type of event.
- Coordinated response utilizing the NIMS and the ICS.

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The IC is responsible for initiating the de-escalation/demobilization process. Demobilization is the orderly, safe, and efficient return of operations, facilities, and resources to their pre-event status. Demobilization planning is an ongoing process that facilitates accountability and ensures efficient resource management.

Tracking resource requirements and releasing those resources that are no longer required to support the response is essential for accountability and managing incident control. This assists in reducing the loss of resources, and operating costs, and ensuring the retention and availability of resources for other activities and assignments as needed.

The Planning & Intelligence Section Chief (PSC) develops demobilization plans and ensures they are implemented as instructed by the IC.

The emergency response operations may be fully demobilized when:

- All event-related jobs are assigned.
- Centralized Dispatch is managing the event.
- All non-regional crews are released.

10.0 Training and Exercises

Successful response to emergency events requires a Company-wide commitment to preparedness integrated into LUMA's daily operations, not just during emergency events. Emergency preparedness activities can include planning, training, and participating in exercises; attending meetings with public safety officials, Emergency Preparedness Department staff, and PREMB personnel; and maintaining updated contact information of personnel and organizations that may assist in LUMA's restoration efforts. Every employee is expected to participate in preparedness activities throughout the year.

The Emergency Preparedness Department maintains the ERP-related training database and coordinates ERP role-related training. Training, drills, and exercises are designed and conducted to develop and improve the knowledge and skills of personnel assigned to emergency response activities and support the safe and reasonably prompt completion of all required actions during ERP activations.

The LUMA exercise program is consistent with the Homeland Security Exercise Evaluation Program (HSEEP) developed by the Federal Emergency Management Agency (FEMA). The HSEEP methodology is defined and implemented using seven exercise types, broken into the categories of discussion-based exercises and operations-based exercises. LUMA employs a variety of exercise types based on the exercise goals and objectives. The goal of conducting exercises is to enhance training, improve familiarization, evaluate, or validate plans, policies, and procedures, increase capabilities, and practice skills in a no-fault, risk-free environment.

11.0 Annex Development and Maintenance

This Annex is a living document. The development and maintenance of this Annex are in conjunction with the LUMA ERP – Base Plan. Proposed changes should be sent to the Emergency Preparedness Department for approval and inclusion.

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Please reference the ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

12.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 2) **Cybersecurity** – The practice of protecting critical systems, networks, programs, and sensitive information from digital attacks.
- 3) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of disasters.
- 4) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
- 5) **Emergency or Emergency Event** – Any outage event, as per the T&D Operational Management Agreement (OMA); declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LER.
- 6) **Impede** – To delay or hinder something or a process.
- 7) **Incident Action Plan**– Includes the overall incident objectives and strategies established by the IC. The Planning Section is responsible for developing and documenting the IAP.
- 8) **Incident Commander** – The individual appointed by the Company's executive management to have overall responsibility for LUMA's response during an Emergency Event.
- 9) **Incident Command System** – Coordinated and collaborative incident management construct specifically designed and made a part of the NIMS under FEMA.
- 10) **Joint Information Center** – A central point of contact for new media and interest parties to coordinate incident information activities.
- 11) **LUMA Emergency Roster** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation. Includes those in the Emergency Operations Centers (EOCs) and those in the field.
- 12) **Terrorism** – The unlawful use of threat violence, especially against the public or government, as a politically motivated means of attack, coercion, and intimidation.

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Annex F – Activation Guide

LUMA Energy

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List of Acronyms

ACRONYM	DEFINITION
CMC	Crisis Management Committee
CML	Crisis Management Leader
CSO	Corporate Services Officer
EOC	Emergency Operations Center
ERO	Emergency Response Organization
ERP	Emergency Response Plan
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
NIMS	National Incident Management System
NRF	National Response Framework
OE	Outage Event

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Annex F – Activation Guide

1.0 Purpose

The purpose of LUMA's Emergency Response Activation Guide Annex (Annex F) is to provide a management structure, responsibilities, emergency assignments, and general procedures to follow during an emergency.

Annex F provides guidance to assist in protecting lives and property and maintaining continuity of service throughout the electric grid when affected by any incident or event. Additionally, Annex F applies to LUMA personnel and to any staff of LUMA, affiliate company employees, contractors, mutual aid resources, or any other personnel working in the direction or under the authority of LUMA. It describes general procedures for the activation of the LEOC at the request of the Incident Commander. A vital feature of Annex F is scalability, which allows for expansion and retraction of responding resources depending on the severity of the emergency. Many emergencies are manageable at a local or internal level but can quickly escalate to a system-wide emergency.

2.0 Scope

Annex F applies to emergency events caused by any event, hazard, or threat that results in, or could result in, a major impact on the integrity of the Transmission and Distribution System (T&D) System or any other disruption of electrical service to LUMA customers and require activation of the LUMA Emergency Operations Center (LEOC). Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

LUMA defines an Emergency Outage Event as Types 3, 2, and 1 Events, as described in the Event Classification and LEOC Activation Tables found in Annex A, Tables 3 through 5. Non-emergency outage events, or Types 5 and 4 outage events, may not result in an activation of a physical LEOC found in Annex A, Tables 6 and 7.

3.0 Situation and Assumptions

3.1 Situation

The success of LUMA's response to an emergency event is predicated on LUMA's commitment to prepare and implement procedures outlined within Annex F and the Emergency Response Plan (ERP) – Base Plan. The number of customers affected, and the magnitude of an emergency event vary, but the operational concept stays consistent. Execution of the appropriate responses to affect rapid and safe recovery is dependent upon the scalability of Annex F. The level of recovery resources can be adjusted as needed.

Identified below are additional information and considerations regarding LEOC activation, but are not limited to the following:

- The primary LEOC is located at 1110 Av. Juan Ponce de León, San Juan, 00907, Puerto Rico .
- The alternate LEOC is located in Palo Seco at Carr. #165 Km 31.8 Palo Seco, Toa Baja, PR.

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- LUMA Energy provides electric services to approximately 1,470,000 customers in 78 municipalities in Puerto Rico.
- LUMA is responsible for the development and maintenance of the ERP.
- A variety of major outage events can adversely impact the integrity of Puerto Rico's Transmission and Distribution ("T&D") System, triggering a LEOC activation.
- LUMA will manage major outage events and emergency operations from the LEOC.
- LEOC has the capability to communicate with municipalities, the Government of Puerto Rico, and federal agencies when needed in times of emergency.
- Quick restoration of electric service is a customer expectation and a LUMA commitment.

3.2 Assumptions and Considerations

LUMA's ability to respond to and recover from any type of incident that may affect the T&D System is critical. The concepts for the response, restoration, and recovery are outlined within the ERP – Base Plan and Annex A, Major Outage Restoration. Identified below are additional assumptions and considerations regarding LEOC activation, which include, but are not limited to, the following:

- LUMA is responsible for the development and maintenance of the Emergency Response Plan (ERP). The ERP will be activated when a LEOC activation occurs.
- In the event of an emergency or disaster, LUMA response personnel and their families may be impacted, affecting the accessibility of needed human resources in the LEOC and the field.
- An outage event (OE) or major outage may occur at any time of the day or night, regardless of weekends or holidays, with little to no warning, requiring a LEOC activation.
- Response to all OEs should be guided by the principles of the National Response Framework (NRF), National Incident Management System (NIMS), and the Incident Command System (ICS).
- Due to the island's geographic location, not on mainland, available resources during an emergency may be limited to those on island. The arrival of additional support from pre-positioned contracts or mutual aid partners in the mainland may be delayed, potentially taking several days or weeks depending on the circumstances.

4.0 Concept of Operations

Day-to-day outages do not require formal activation of the LEOC. When incidents increase in complexity and become typed as OEs, a higher level of coordination and resources are required outside of the immediate capabilities or availability. During these situations, LEOC may be activated to support required operations. The LEOC is the physical location from which all response activities are coordinated. It is activated and staffed based on the needs of the incident.

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In the event of an incident that causes an OEs, LUMA will rapidly assess the impacts on the T&D infrastructure. At this time, LUMA will take the necessary actions to restore community lifelines as rapidly as possible, minimizing the impact on the residents of Puerto Rico.

4.1 Emergency Response Organization

LUMA Emergency Operations Center (LEOC), with its emergency roster, is designed to enable effective and efficient emergency management and coordination that is both internal and external through a flexible and standardized management structure that is scalable. Therefore, it can be utilized throughout day-to-day operations and during large-scale emergency outage events.

The LEOC is aligned with the National Incident Management System (NIMS) and utilizes an Incident Command System (ICS) structure. The utilization of ICS establishes lines of supervisory authority and formal reporting relationships that define clear lines of communication between different functional groups.

The number of LEOC personnel and mobilized resources will be dependent upon the size, scale, and complexity of the OE. There are three (3) defined levels for the LEOC. They are classified as Strategic, Operational, and Tactical and are defined as:

- **Strategic Level:** Provides LUMA's strategic guidance for response to the LEOC staff. The strategic level, LUMA's CMC, does not direct emergency responses or tactical operations.
- **Operational Level:** Develops LUMA's response to the emergency and oversees the implementation of the Incident Action Plan (IAP). This group forms the LUMA Emergency Operations Center (LEOC) staff and can include the ROCCs when activated as an Incident Management Team (IMT) under VP Operations.
- **Tactical Level:** Implements LUMA's response to the emergency and reports to the LEOC. This group forms the Regional Operations Command Centers (ROCCs) and includes the Systems Emergency Restoration Teams (SERTs), damage assessment teams, and others, such as Large Projects, and contractors.

4.2 Activation

The efficient activation of LER personnel is critical to the success of any response. Storms and hurricanes can affect LUMA operations outside daily steady-state operational boundaries. During significant emergencies that result in a substantial impact on T&D operations or a state/federally declared island-wide emergency, the CMC convenes to assess potential events, activates the LEOC and appoints an Incident Commander (IC). The IC is responsible for activating the Command Staff and analyzing the severity, complexity, and size of the incident.

4.2.1 Forecasted Potential Incidents vs. No-Notice Incidents

Forecasted Potential Incidents and Scheduled Events

Forecasted potential incidents allow for a preparedness window before the incident happens to posture the organization for a response. These incidents will be atmospheric most of the time. Forecasted events, such as scheduled protests, sporting events, conventions, etc., have the potential to result in an unplanned

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incident. For these types of incidents, a LEOC Activation Level should be assigned first, followed by assigning an Event Classification Type, if needed. An Event Classification Type may be chosen once an incident starts to negatively affect any part of the T&D System.

No-Notice Incidents

A no-notice incident is one that occurs unexpectedly or with minimal warning. The lack of warning and the quick response time required introduces distinct challenges. No-notice incidents do not provide emergency responders sufficient time to prepare for the specific incident. This greatly affects LUMA's ability to pre-position needed assets and resources, as well as warn and direct the public. Some examples of no-notice incidents include earthquakes, tsunamis, chemical spills, explosions, blackouts, and terrorist attacks. For a no-notice incident, determination of an Event Classification Type is needed first, followed by the establishment of the LEOC Activation Level.

4.3 LEOC Activation

The effective and timely activation of emergency response personnel is critical to the success of the response. During significant emergencies that result in a substantial impact on T&D operations or a state/federally declared island-wide emergency. The process for the LEOC activation begins, for notice incidents, as soon as the Emergency Preparedness Department starts tracking a possible threat.

4.3.1 Weather Updates

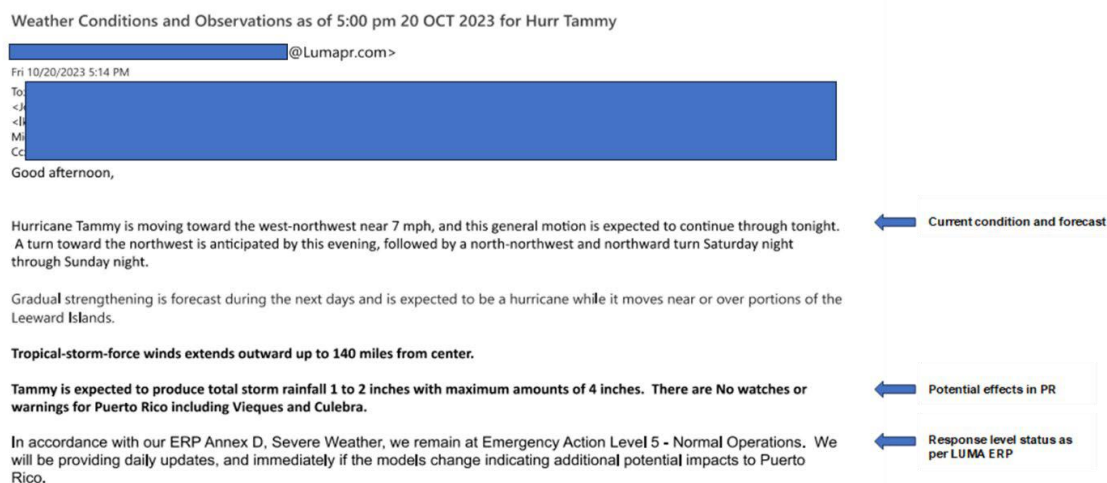
The Emergency Preparedness Department will commence sending weather updates issued by NOAA NWS to the CMC members when there is a disturbance or tropical depression with a high chance (>60%) of cyclone formation with models showing that it is heading to the Caribbean with an estimated arrival time within 120 hrs. or less.

The CMC weather update summarizes the system's current situation, forecast, and potential impact. Additionally, it will have wind speed probability and warnings/cone graphics. Weather updates will cease once there is no direct impact on current weather conditions. Figure 1 is an example of the email sent to CMC relaying the NOAA information on weather status.

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Figure 1: Weather Conditions Notification Email Example.



4.3.2 Crisis Management Committee

The emergency response process begins with an evaluation of system conditions that trigger the recommendation to convene the CMC and determine if LEOC should be activated. At least one of the following conditions should be met to request a CMC meeting to determine if LEOC should be activated:

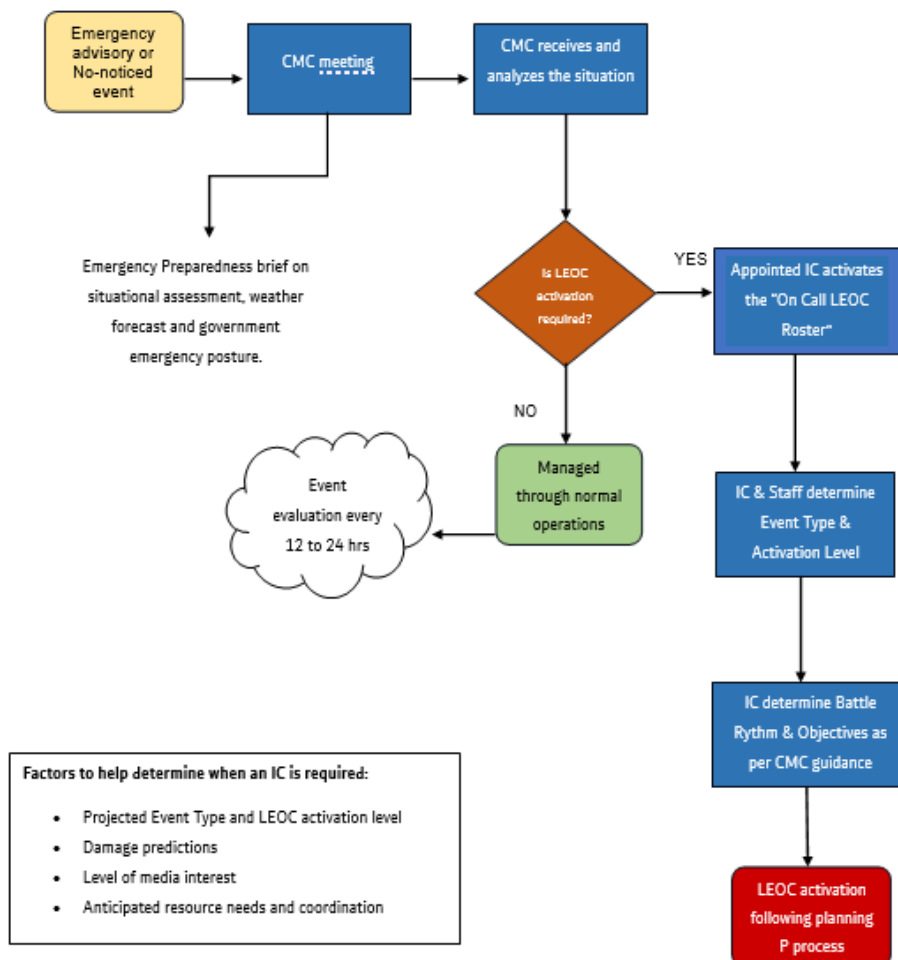
- Developing conditions within 120 hours of arriving in Puerto Rico could present a potential risk to the T&D system of < 10% (70,000) customer outage.
- No notice event with severity damage within a specific district or region that restoration activities are carried out within 48-72 hours.
- Adverse events such as demonstrations, marches, riots, or any situation with high media visibility or heightened physical security alert posture.
- Cybersecurity or terrorism incidents that result in, or could result in, a major impact on the integrity of the T&D System or any other interruptions to electrical services to LUMA customers.

If it is not possible to effectively manage an event through normal operating procedures, the LUMA CEO, who chairs the CMC, orders the activation of the LEOC and appoints the IC. Figure 2 describes the process of the LEOC activation.

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Figure 2: Process for the Activation Flowchart.



4.3.3 Incident Commander, Command Staff, and Section Chiefs

Due to the size and nature of the activation process, it is intended to be a cascading activation to maximize response efficiency and consistency. Once named, according to the nature of the incident and expertise, the IC activates the Command Staff and Section Chiefs during Operational Period 1. The IC and the “On Call LEOC Roster” Command Staff and Section Chiefs analyze the severity, complexity, and size of the incident to determine if additional roles in the LER need to be activated under his/her section. Section Chiefs will determine changes as per situation and IC objectives. The “On Call Roster” is notified of its activation by the EP and CX departments using the Genesys System (following Genesys System SOG).

Activation via Genesys System:

When the IC requests the activation of Command Staff and Section Chiefs, as per the “On Call LEOC Roster”, the Genesys System will issue alerts to designated personnel via text messages and emails with activation instructions. The Contact Center has pre-determined notification scripts that will be filled as it

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pertains to the event. There are templates in place for each notification scenario with the intent that when the Emergency Preparedness Department, requests the specific one by name: “Activate Genesys notification BREAKER.”

- Notification BREAKER: “Crisis Management Committee member, a CMC meeting has been scheduled by the CEO. Please check your calendar for the Teams invite.”
- Notification TRANSFORMER: “LEOC Incident Commander has activated the LEOC for tomorrow. Please report to the LEOC at 0700 hours, prepared for a 12-hour shift.”
- Notification HARDHAT: “LEOC Incident Commander has activated the LEOC today. Please report to the LEOC at 0700 hours, prepared for a 12-hour shift.”
- Notification ISOLATOR: “This is an exercise of the LEOC notification process. Please respond to acknowledge receipt.”

Initial Mobilization and Incident Evaluation:

Upon receiving activation orders, the Command Staff and Section Chiefs report to the LUMA Emergency Operations Center (LEOC) (or designated alternate LEOC, if necessary), at the directed time.

Command Staff Responsibilities Upon Arrival:

- Incident Commander (IC): Provides an initial briefing based on the situation as known.
- Safety Officer: Assesses potential hazards and advises on risk mitigation.
- Public Information Officer (PIO): Prepares for media coordination and internal communications.
- Liaison Officer (LNO): Establishes contact with interagency partners and external stakeholders.
- LEOC Manager: Establish operational control.
- Command Section Assistant: In charge of section personnel activation via preferably WebEOC; however, other means might be used. Also in charge of finance section activation.

Section Chiefs Responsibilities Upon Arrival:

- Operations Section Chief: Reviews the operational situation and begins resource deployment planning.
- Planning & Intelligence Section Chief: Initiates incident documentation, creates situational awareness briefings, and establishes a battle rhythm.
- Logistics Section Chief: Evaluates resource requirements to include communications, fuel, pre-positioned contracts and facilities.
- Finance Section Chief: Reviews financial implications, ensures cost tracking, and assigns project numbers.

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General Staff Responsibilities Upon Arrival:

- Section Assistants: In charge of section personnel activation via preferably WebEOC; however, other means might be used.

Evaluating the Incident and Determining Activation Type and Level:

After the initial briefing, the Command Staff and Section Chiefs conduct a structured evaluation of the incident, designating the Activation Level and Event Type, as per sections 6.3 and 6.4 of the Base Plan.

Event type and level are assigned, which allows the Command Staff and Section Chiefs to request augmentation of their section staff. It is important to re-evaluate the LEOC Activation Level and Event Classification Type every 12-24 hours, at a minimum. The Activation Decision Flowchart outlines these processes.

Upon activation at any level, the LEOC serves as the centralized location to monitor and report the impact of the emergency while providing communications between the LEOC, the ROCC's, stakeholders, government entities, and customers. The LEOC is the focal point for the coordination, and support of emergency response and recovery activities for LUMA.

4.3.4 LUMA Emergency Roster (LER) Activation

Once the Incident Commander authorizes the activation of a role, the Section Chief is responsible for notifying the Section assistant. This notification must specify the role being activated, the individual assigned to the role (according to the roster for the current period), and the expected time of activation. The Section Chief must provide this information promptly to ensure a rapid response. The LER is published on LUMA's intranet page allowing employees to implement their family action plan before reporting to the LEOC if recalled.

Upon receiving the activation order, the Section Assistant will initiate the WebEOC notification process, or alternate system (depending on communication conditions). This involves sending both an email and a text message to the individual assigned to the activated role. the

The initial notification must include details such as the role being activated, reporting requirements (including time and location, whether virtual or in-person), and a contact point for confirmation. The activated individual must acknowledge receipt of the notification and confirm their availability within one hour.

To ensure proper documentation, the Section Assistant must copy (CC) the Documentation Unit Leader on all activation notifications. This ensures that an official record of the activation process, including responses and any escalations, is maintained in WebEOC for future reference.

If the individual does not acknowledge the activation within thirty minutes, the Section Assistant will issue a follow-up notification via WebEOC, email, and text. If no response is received after one hour, the Section Chief will be informed to determine contingency actions. These actions may include reassigning the role, contacting an alternate individual, or escalating the issue to the Incident Commander if necessary.

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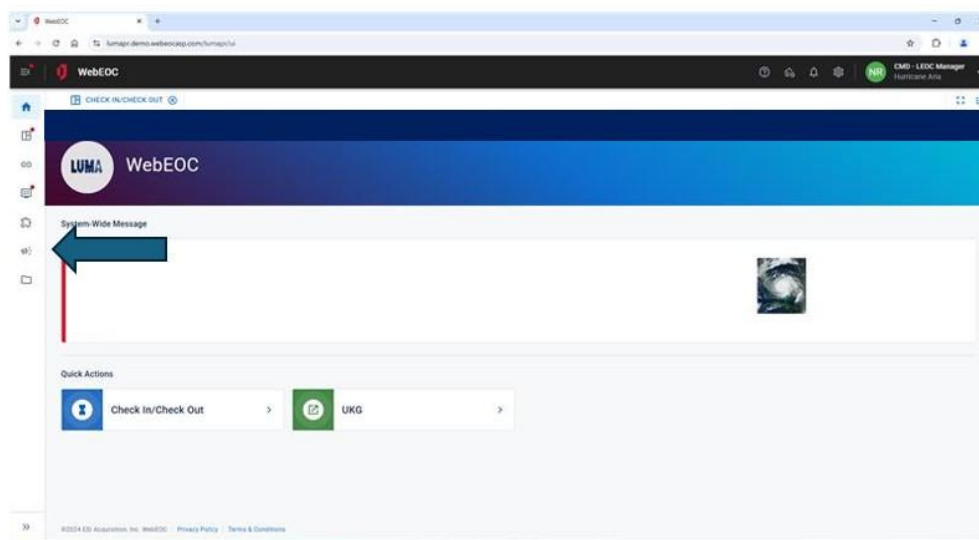
The Documentation Unit Leader is responsible for logging all activation notifications, responses, and any escalation measures in WebEOC. This ensures that all activation records are available for audit, reporting, and continuous improvement purposes.

Activation via WebEOC System:

Step 1: HOC Alert

- Open the LUMA WebEOC portal using your credentials and navigate to the HOC Alert Board or the designated alert notification module. Figure 3 illustrates the WebEOC HOC alert Icon.

Figure 3: WebEOC HOC Alert



Step 2: Initiate a New HOC Alert

- Click on “Create New Alert” and fill out the required fields:
 - Alert Title: LEOC Activation.
 - Details: “LEOC Incident Commander has activated the LEOC for (Date). Please report to the LEOC at (XX:XX) hours, prepared for a 12-hour shift. Figure 4 demonstrates the process to submit a HOC alert.

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Figure 4: Initiate a New HOC Alert Process

The screenshot shows a web browser window with the URL `luma.demo.webocasp.com/luma/ui/adhocalerts/sent`. The page title is 'Create Notification'. The form is divided into three main sections: 'Details', 'Messages', and 'Responses'. The 'Messages' section is active, showing a 'Short Message' and a 'Long Message' (HTML) field. A 'Send' button is located at the bottom right of the form.

Step 3: Select Recipients

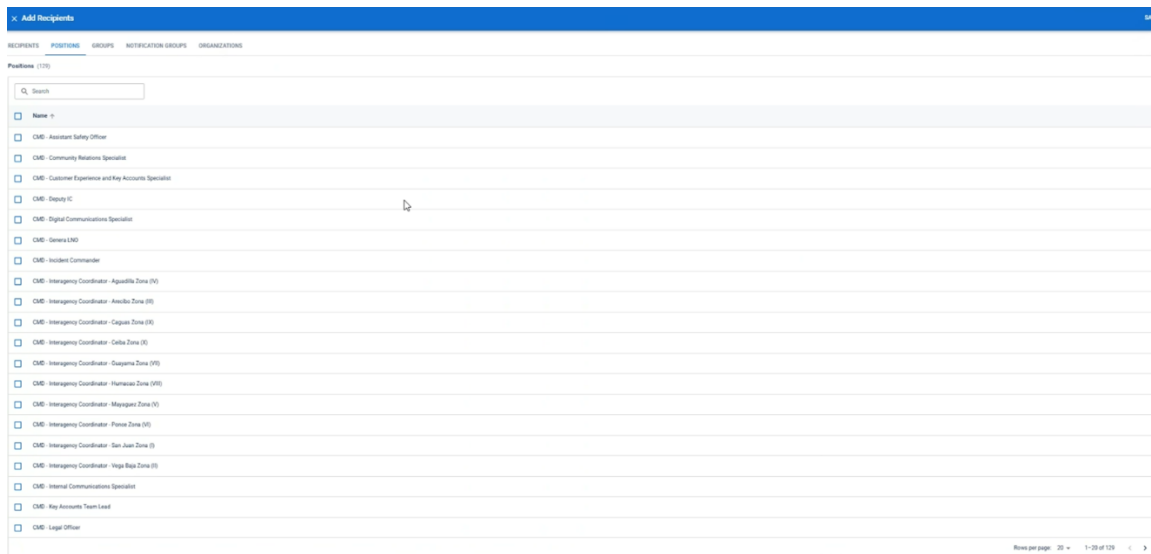
- Choose the appropriate distribution list according to the roster. Figure 5 highlights the area to select when choosing recipients from the LER activated.

Figure 5: Select Recipients

The screenshot shows the 'Select Recipients' section of the 'Create Notification' form. A blue arrow points to the 'Internal Recipients' field. The form includes fields for 'Internal Recipients', 'External Recipients', and 'CC'. A 'Total Recipients' field at the bottom shows '0 RECIPIENTS'. A 'Send' button is located at the bottom right of the form.

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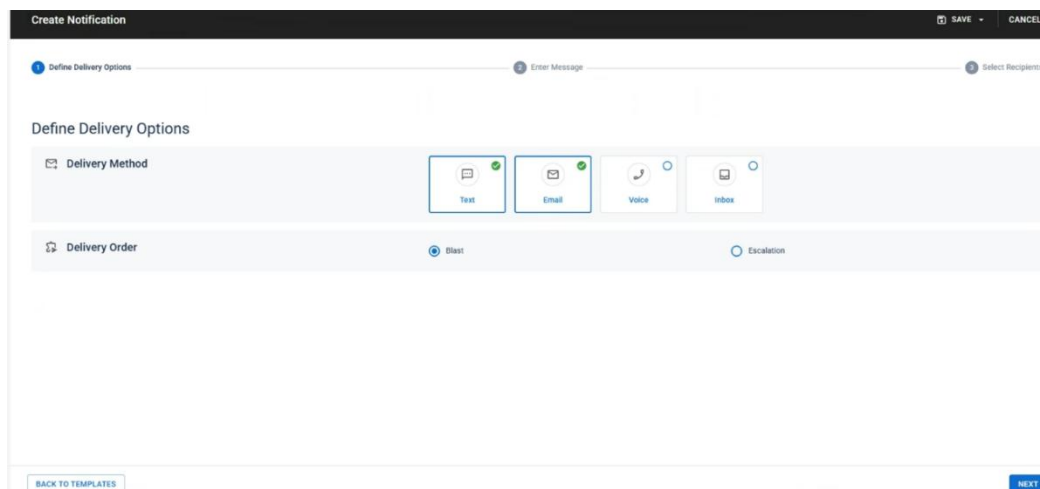
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Step 4: Configure Alert Delivery Methods

- Ensure that both SMS and email checkboxes are selected.
- WebEOC will auto-format SMS messages, so keep the first 160 characters concise for text recipients. These options are reflected in Figure 6.

Figure 6: Configure Alert Delivery Methods

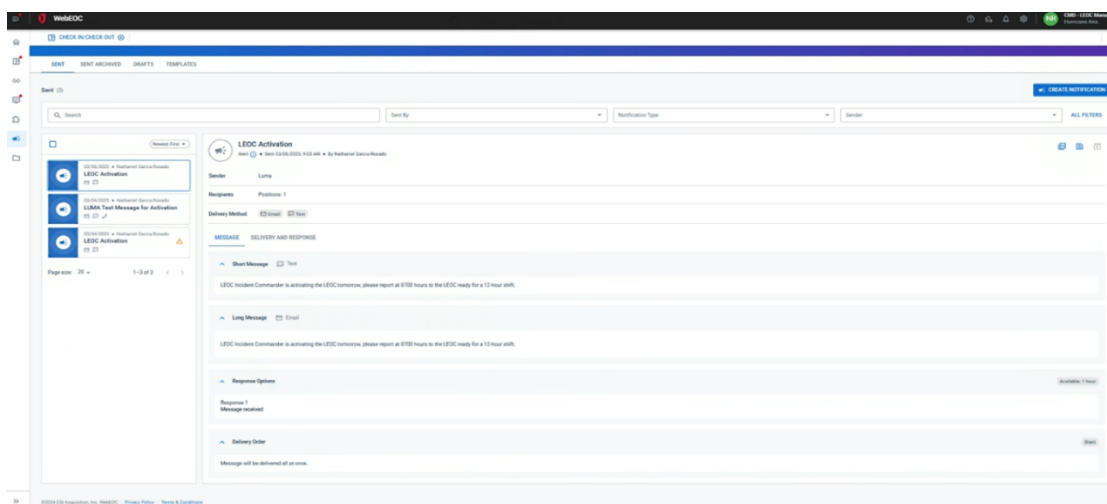


Step 5: Send and Confirm

- Click “Send” to distribute the notification.
- Verify the alert’s status in WebEOC to ensure it was logged and sent, and check recipient acknowledgment if WebEOC provides a delivery status update.

- Recipients must acknowledge receipt using only ONE method (either email or text message). The system will not allow a second method to acknowledge.
- WebEOC will register the first acknowledgment, and any duplicate or subsequent responses will generate an automatic response message stating that it was already submitted, and that a second acknowledgement is not allowed. The process to confirm and send is shown in Figure 7.

Figure 7: Send and Confirm



Step 7: Monitor and Update if Necessary

- If the situation evolves, issue an updated HOC alert with new information.

5.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 2) **Critical Facilities** – Identified as Level 1, 2, or 3 facilities that provide services that are critical to the health and safety of the public and are tied to at least one of the seven critical Community Lifelines. Examples include hospitals, fire/police stations, restoration staging areas, and communications facilities.
- 3) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of disasters
- 4) **Demobilization** – The ongoing process of disengaging response resources as incident objectives are met and returning them to their normal function.
- 5) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.

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- 6) **Emergency or Emergency Event** – Any outage event, as per the T&D OMA; declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LUMA Emergency Roster.
- 7) **Emergency Operations Center (EOC)** – The physical locations at which coordination of information and resources to support incident management activities occurs.
- 8) **Emergency Response Plan** – A comprehensive plan that provides the concept of operations for response to emergency situations and other extraordinary events consistently and effectively.

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LUMA Energy

NEPR-MI-2019-0006

May 29, 2026



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List of Acronyms

ACRONYM	DEFINITION
CEO	Chief Executive Officer
DHS	Department of Homeland Security
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
IP	Improvement Plans
IT	Information Technology
IVR	Interactive Voice Response
LEOC	LUMA Emergency Operations Center
LER	LUMA Emergency Roster
LPE	Life Preserving Equipment Dependent Customers
LRIAC	LUMA Regional Interagency Coordinators
MOE	Major Outage Event
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NRF	National Response Framework
OE	Outage Event
PACE	Primary, Alternate, Contingency, and Emergency
PIO	Public Information Officer
PREMB	Puerto Rico Energy Management Bureau
PREPA	Puerto Rico Electric Power Authority
ROCC	Regional Operations Command Center
T&D	Transmission and Distribution

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1.0 Purpose

The purpose of LUMA's Emergency Response Communication Guidelines Annex (Annex G) is to provide a management structure, responsibilities, emergency assignments, and general procedures to establish and maintain communications during emergencies.

LUMA recognizes the need for interagency communication, interoperability, and cooperation, as well as within the company. Today's public safety realities highlight the need for agencies to work together to establish communications interoperability and mutual aid plans—not only across traditional jurisdictional boundaries—but across disciplines as well. Annex G provides guidance about how information will be disseminated within the organization during various emergencies, ensuring that employees, stakeholders, and other relevant parties are informed, safe, and can respond effectively.

The principal objective of this Annex is to provide key decision-makers from LUMA and various agencies with a real-time means of direct communication.

2.0 Scope

Annex G applies to emergency events caused by any event, hazard, or threat that results in, or could result in, a major impact on the integrity of the ordinary communication system that requires the implementation of this Annex. LUMA Emergency Operations Center (LEOC) activation is not necessarily required as the situation may only be a communication failure. Execution of coordinated decisions, appropriate responses, and actions to activate resources contributes to a rapid and safe recovery and depends upon the scalability of this Annex.

3.0 Situation and Assumptions

3.1 Situation

The success of LUMA's response to a Major Outage is predicated on LUMA's commitment to prepare and implement procedures outlined within Annex G and the Emergency Response Plan (ERP) – Base Plan. The number of customers affected, and the magnitude of a Major Outage Event vary. However, the operational concept remains consistent. The execution of the appropriate responses to affect rapid and safe recovery is dependent upon the ability to effectively communicate with LUMA key personnel, partner agencies, and other important players. The level of recovery resources can be adjusted as needed.

Identified below are additional information and considerations regarding LEOC activation, but are not limited to the following:

- The primary LEOC is located at 1110 Av. Juan Ponce de León, San Juan, 00907, Puerto Rico.
- The alternate LEOC is located at Palo Seco at Carr. #165 Km 31.8 Palo Seco, Toa Baja, PR.
- LUMA Energy provides electric services to approximately 1,470,000 customers in 78 municipalities in Puerto Rico.

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- LUMA is responsible for the development and maintenance of the ERP.
- A variety of major outage events can adversely impact the integrity of Puerto Rico's Transmission and Distribution (T&D) System, triggering LEOC activation.
- LUMA will manage Major Outage Events (MOE) and emergency operations from the LEOC.
- The LEOC has direct communications with Genera PR and Puerto Rico Electric Power Authority (PREPA) Emergency Operations Centers (EOCs) using line lines and alternate means such as chats, emails, interagency coordinators, and satellite phones, among others. Figure 2 illustrates the process.
- The LEOC has the capability to leverage alternate communications systems with municipal, Government of Puerto Rico, and federal agencies when needed in times of emergency.
- Quick restoration of electric service is a customer expectation and a LUMA commitment.

3.2 Assumptions and Considerations

LUMA's ability to respond to, and recover, from any type of incident that will affect the T&D System is critical. The concepts for the response, restoration, and recovery are outlined within the ERP – Base Plan and Annex A- Major Outage Restoration. Identified below are additional assumptions and considerations regarding LEOC activation, which include, but are not limited to, the following:

- LUMA is responsible for the development and maintenance of the ERP. The ERP will be activated when a LEOC activation occurs.
- In the event of an emergency or disaster, LUMA response personnel and their families may be impacted, affecting the accessibility of needed human resources in the LEOC and the field.
- An outage event (OE) or major outage may occur at any time of the day or night, regardless of weekends or holidays, with little to no warning, requiring a LEOC activation.
- Response to all OEs should be guided by the principles of the National Response Framework (NRF), National Incident Management System (NIMS), and the Incident Command System (ICS).
- Due to the island's geographic location, not on mainland, available resources during an emergency may be limited to those on island. The arrival of additional support from pre-positioned contracts or mutual aid partners in the mainland may be delayed, potentially taking several days or weeks depending on the circumstances.
- Traditional means of communication might not be available, but knowledge of the use of alternate systems is paramount to preserve information flow and maintain situational awareness at all levels.

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4.0 Concept of Operations

Day-to-day outages do not require an activation of the LEOC. When incidents increase in complexity and become typed as MOE, a higher level of coordination and resources are required outside of the immediate capabilities or availability. On the other hand, the types of emergencies described in the base plan do not necessarily involve a disruption of normal communications, but we must plan for these potential communication failures.

In the event of an incident that causes an emergency outage event, LUMA will rapidly assess the impacts on the T&D infrastructure. At this time, LUMA will take the necessary actions to restore community lifelines as rapidly as possible, minimizing the impact on the citizens of Puerto Rico. However, to achieve this, we must have a reliable system of communication that is accompanied by an alternative plan that allows for rapid reaction and coordination at all levels.

4.1 Activation

The efficient activation of emergency response personnel is critical to the success of the response. During significant emergencies that result in a substantial impact on T&D operations or a state/federally declared island-wide emergency, LUMA Crisis Management Committee (CMC) will activate the LEOC and appoint an Incident Commander (IC). During Operational Period 1, the IC and the “On Call” Command Staff and Section Chiefs analyze the severity, complexity, and size of the incident to determine if additional roles in the LER need to be activated.

Forecasted Potential Incidents vs. No-Notice Incidents

Forecasted Potential Incidents and Scheduled Events

Forecasted potential incidents allow for a preparedness window before the incident happens to posture the organization for a response. These incidents will be atmospheric most of the time. Forecasted events, such as scheduled protests, sporting events, conventions, etc., have the potential to result in an unplanned incident. For these types of incidents, a LEOC Activation Level should be assigned first, followed by assigning an Event Classification Type, if needed. An Event Classification Type may be chosen once an incident starts to negatively affect any part of the T&D System.

No- Notice Incidents

A no-notice incident is one that occurs unexpectedly or with minimal warning. The lack of warning and the quick response time required introduces distinct challenges. No-notice incidents limit emergency responders time to prepare for the specific incident. This greatly affects LUMA's ability to pre- position needed assets and resources, as well as warn and direct the public. Some examples of no-notice incidents include earthquakes, tsunamis, chemical spills, explosions, blackouts, and terrorist attacks. For a no-notice incident, determination of an Event Classification Type is needed first, followed by the establishment of the LEOC Activation Level.

It is important to re-evaluate the LEOC Activation Level and Event Classification Type every 12-24 hours, at a minimum.

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4.2 Communication Operations

The effective and timely activation of emergency response personnel is critical to the success of the response. During significant emergencies that result in a substantial impact on T&D operations or a state/federally declared island-wide emergency, the CMC will activate the LEOC and appoint an IC. During Operational Period 1, the IC with the “On Call” Command and General staff will initiate the response effort. Due to the size and nature of the activation process, it is intended to be a cascading activation to maximize response efficiency and consistency.

LUMA assesses the impact on the T&D infrastructure. After the assessment, LUMA takes the necessary actions to restore Community Lifelines as rapidly as possible and minimize its impact on the citizens of Puerto Rico. LUMA utilizes Event Types (Base Plan and Appendix A) for Major Outage Events and phases of response.

4.2.1 Scope

Communicating during emergencies is critical for ensuring effective coordination during all phases of the response, communities’ wellbeing, and the safety of everyone involved in these operations.

The scope of communications during emergencies includes:

- Alerts and Warnings: Providing timely and accurate alerts to the public about potential emergencies, such as severe weather, natural disasters, or public threats.
- Emergency Notifications: Disseminating information about the nature of the emergency, recommended actions, and other instructions to affected areas.
- Coordination: Facilitating communication and coordination among first responders, emergency services, government agencies, and other relevant organizations to ensure an effective response.
- Resource Allocation: Managing and communicating resource availability and allocation, including supplies, equipment, and personnel.
- Community Engagement: Engaging with the community to provide information, address concerns, and encourage preparedness and resilience.
- Media Relations: Coordinating with the media to ensure accurate and timely reporting of emergency information and updates.
- Digital and social media: Utilizing digital platforms and social media to reach a wider audience and provide real-time updates.

The scope of communications during emergencies is broad and multifaceted, and it plays a crucial role in saving lives and minimizing the impact of disasters and crises.

4.3 Information Sharing

Information sharing is the timely, accurate, and actionable exchange of information between private organizations, public organizations, and Non-Governmental Organizations (NGOs) in multiple jurisdictions and disciplines. It is crucial for enhancing situational awareness, fostering effective response coordination,

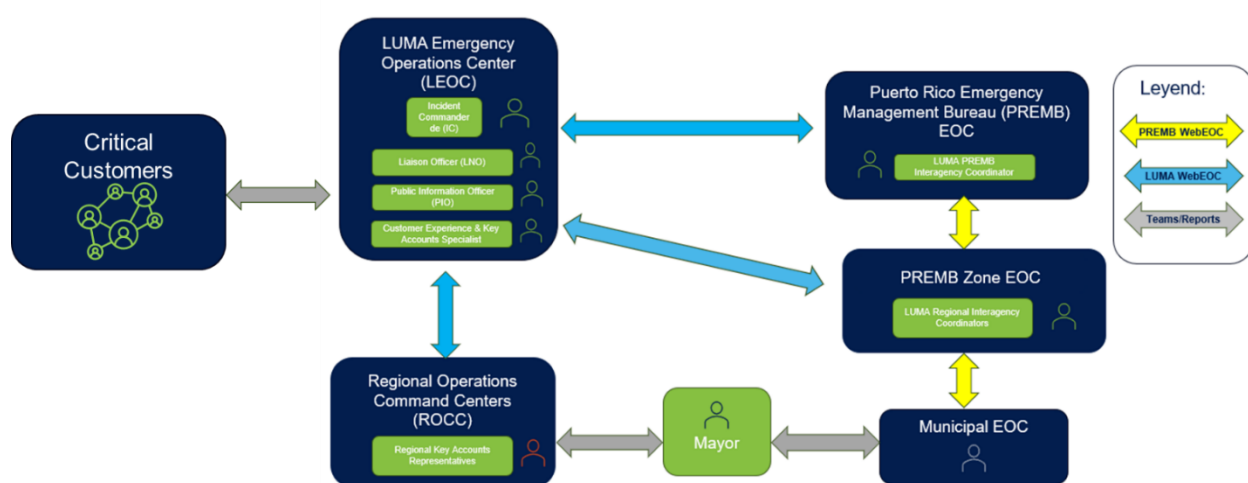
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and preventing potential risks. Proper and timely key information assists in making appropriate decisions and planning based on current and reliable data with the purpose of mitigating adverse effects in emergency situations. LUMA is committed to sharing information with key stakeholders to assist them with their course of action and decision-making process.

Figure 1 describes how LUMA communicates with different partners to keep them informed about the status of initial response, restoration work, and estimated recovery projections. Likewise, reports are received on the status of health and safety situations and prioritization. Any issues that could potentially impact operations should be promptly communicated to LUMA.

Figure 1: Information sharing flow between LUMA and key partners.



4.3.1 LUMA PREMB Interagency Coordinators

The application of WebEOC is the primary means of incident communication among interagency coordinators. LUMA Interagency Coordinators at the PREMB Central and the PREMB Zone CoEs have an account and access to the PREMB WebEOC application and specific event.

As the municipal and/or zone CoEs state interagency coordinators generate Request Form 113 (RF-113) that require LUMA's action, the LUMA PREMB Interagency Coordinator at the Central CoE will download and share the RF-113 in LUMA's WebEOC Incident File board. In addition to assigning an event number in LUMA's OMS, the process and speed of damage assessments and restoral efforts can be shared with the stakeholders using a common reference.

4.3.2 Key Accounts

Communication between LUMA, each of the 78 municipalities in Puerto Rico, and agencies with Critical Infrastructure are essential elements of effective emergency response. LUMA is committed to regular and transparent communications with all mayors, government officials, and critical accounts representatives in an emergency.

Key Accounts Representatives establish and maintain ongoing relationships with government officials, partner agencies housing critical facilities, and stakeholders, aiding in emergency and outage planning.

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They continuously verify the accuracy and completeness of contact information and critical facility locations. Additionally, Key Account Representatives, Customer Experience and Operations personnel collaborate with Emergency Preparedness Department Staff annually to update critical facility lists, ensuring all changes are documented in the ERP updates that correspond to that year's revision. In addition, they review the communication channels with the one-pager titled "Communications with Municipalities and in an Emergency." This document presents a flowchart and detailed description of the communication protocol during emergencies, ensuring situational awareness. For a comprehensive list of critical facilities and their levels during restoration events, please consult Appendix C of the Base Plan.

Before, during, and after an emergency, to ensure a coordinated response, it is critical that LUMA and municipalities/mayors follow the lines of communication established in accordance with the NIMS.

Key Accounts (KA) Representatives begin contact with municipal mayors, their designees, and partner agencies responsible for critical facilities at the 48-hour mark. During this initial outreach, LUMA Regional Key.

Accounts KA Representatives provide situational updates, including details about emergency conditions, outages, restoration progress, the status of assigned crews, priority down wire locations, and the impact on critical facilities. During an incident communication lines remain open to provide situational awareness information, including the status of emergency conditions, outage and restoration updates, and road blockages. This information encompasses damaged utility poles, blocked roads, downed power lines, and obstacles hindering access to critical facilities, creating urgency and risk. Additionally, they report on the presence and needs of emergency personnel and impacted critical facilities, in accordance with the LUMA Major Outage Metrics (found in Appendix A of Annex A).

Communication with municipal officials continues daily through structured methods designed to ensure timely updates and efficient coordination. Scheduled conference calls, divided by region, take place at 11:00 a.m. each day. These calls align with the LUMA Emergency Operations Center (LEOC) battle rhythm, ensuring that the information shared is both validated and current. Each call, led by the KA Representatives and the ROCC Incident Commander or delegated operational staff, is designed to last no longer than 30 minutes. Within this timeframe, each mayor is allocated a five-minute slot to report on emergency situations specific to their municipality.

Once the meetings are over the KA representatives prepare a report highlighting the additional support requested. This is sent to and managed by the Customer Experience & Key Accounts Specialist at the LEOC.

4.3.3 Contact Center

During emergency situations, there may be a need to increase staffing levels beyond standard coverage at the Contact Center. In such cases, the Contact Center director will ensure sufficient staffing to handle the maximum influx of electric emergency calls efficiently and courteously. Staff augmentation can be achieved through various methods, including the deployment of live agents and automated systems, utilizing both internal and external resources. Prior to significant events, the Contact Center Operations Director will notify Contact Center advisors that outage-related calls will be prioritized over non-outage inquiries (such as flickering lights or billing concerns). Customers will be advised to call back once the volume of emergency calls subsides and will be redirected to self-service options through the Interactive Voice Response (IVR), MILUMA APP, and MiLUMA app. Contact Center advisors are responsible for fielding electric emergency

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calls and furnishing restoration updates to customers, while also managing staffing levels and generating metrics reports. Under the direction of the Customer Experience & Key Account Specialist, the determination will be made as to whether it is necessary to increase the contact center's capacity. The increase will follow the guidelines as described in section 10.2 of the Base Plan.

Determining the necessity to augment Contact Center staff is contingent upon several factors, including storm severity, the number of customer outages, targeted call answer rates, lost customer calls, incoming governmental inquiries, service calls from critical facilities like hospitals, and any significant events impacting LUMA facilities or necessitating communication with customers or government entities.

Efficient operation of the Contact Center staff and technologies is guided by industry best practices and standards. Under normal conditions, the target call wait time is two minutes, with a maximum wait time of 20 minutes during emergencies, which may prompt the activation of additional personnel or contractors. Additionally, the percentage of abandoned calls is capped at 5% in steady-state scenarios but should not exceed 12% during emergencies, signaling the need for personnel or contractor augmentation.

Prior to the occurrence of an emergency event, at least – 48 hours, as per the timeline in Annex D, Severe Weather Response, the LUMA Customer Experience Department activates the outbound telephone calls to Life Preserving Equipment Dependent (LPE) Customers. The telephone messages are customized and contain event information and LUMA preparation actions. This information addresses potential power outages and provides recommended protective actions to seek assistance from local public safety officials and human service agencies, as necessary. The steps for calls to LPE clients prior to a forecasted event are as follows:

- Step 1 – Contact the Billing Services team to get the up-to-date list of LPE Customers.
- Step 2 – Use the list to work with the GIS Specialist to see which LPE Customers are impacted due to the incident.
- Step 3 – Work with the Public Information Officer (PIO) to get approved customer communication to be used to contact the LPE Customers.
- Step 4 – Use the list of impacted LPE Customers to send to the Contact Center to have advisors do call-outs. Ensure the Contact Center does this in a timely fashion and reports the results back to the Customer Experience & Key Accounts Specialist (CUSE LEOC position).
- Step 5 – Provide updates to the LEOC on how many customers have been contacted.

These calls are in accordance with the LUMA Major Outage Metrics (found in Appendix A of Annex A). Personalized calls are attempted at least three (3) times. If there is no answer and when an answering service is available, the LUMA representative will leave a voice message. All of this is documented.

When the client raises additional needs, the LUMA representative will advise based on the information and refer to the Customer Experience & Key Account specialist at the command section of the LEOC, who will leverage their established relationships and refer the need to the appropriate agency or Municipal Office for Emergency Management (OMME).

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4.3.4 PIO (Social Media and Public Announcements)

The PIO, Employee Communications Specialist, and Digital Communications Specialist, have overall responsibility for crafting response information to be disseminated to external and internal stakeholders upon approval by the IC to: Media Outlets, Employees, and Customers.

The Communications functions provide a variety of critical information to LUMA customers and employees using a set of diverse communications resources, procedures, and interactions in advance of and immediately following an emergency event. The information varies from pre-event alert notifications and personal protective-action recommendations to post-event updates on projected outage impacts and restoration activities.

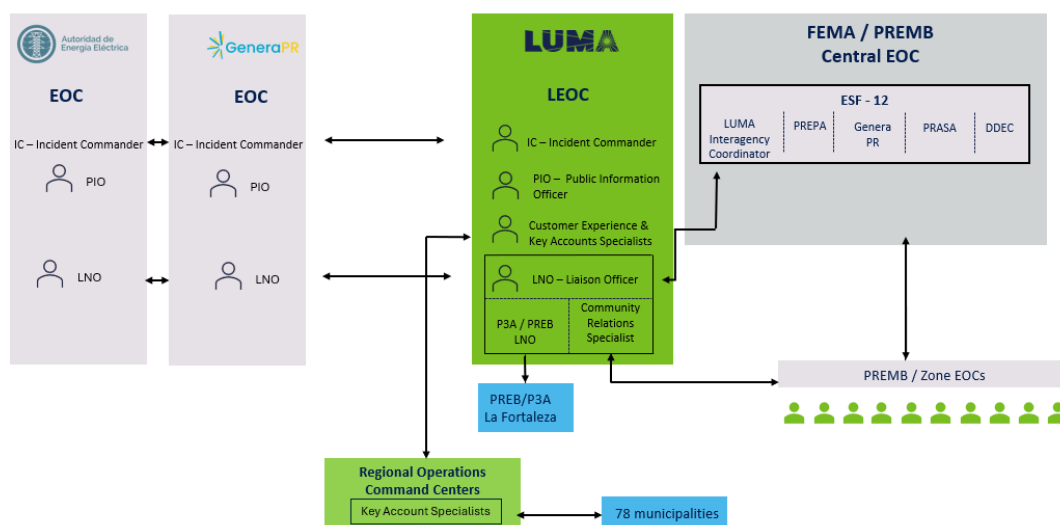
LUMA Standard Operational Guide: Public Information Officer Communication, Technical Document describes in detail the strategies that LUMA uses to disseminate information during emergencies. This document describes the content and frequency of the reports that are tailored to the recipient.

4.3.5 PREMB, PREPA, PREB & GENERA PR

During emergency events, LUMA, via its activated Interagency Coordinators, furnishes reports to government agency representatives or officials regarding emergency conditions and restoration status in each affected region. The PREMB, situated in the PREMB EOCs, takes charge of and supports emergency preparedness and response activities throughout the Government of Puerto Rico.

When PREMB zones EOCs are activated, and the IC, with facilitation from the LNO, deploys the LUMA Regional Interagency Coordinators (LRIACs). LRIACs primarily serve as LUMA's point of contact in the PREMB zones EOCs, conveying regional emergency priorities to the LEOC. Additionally, LRIACs aid PREMB zones EOCs in verifying if regional T&D System emergencies or outages have been reported to the LUMA Contact Center or LEOC using WebEOC. These LRIACs may receive support from a LUMA Regional Key Account Representative with established relationships with mayors during non-emergency periods. Figure 2 illustrates communication among energy stakeholders.

Figure 2: Communication among Energy Stakeholders.



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To track activity, the Commonwealth and Federal EOCs must be activated. Requests from elected officials outside of EOCs are not included.

File storm event information to PREB and Administrator, in accordance with the Major Outage Restoration Annex established in the reporting requirements during the event (section of tables 15-18).

5.0 Communication Plan

The need to communicate is immediately when an emergency occurs. Many different audiences must be reached with information specific to their interests and needs.

This plan is essential for keeping everyone informed and coordinated during an event, which can help to minimize anxiety and confusion. By having a plan in place, LUMA employees and responders can act quickly and efficiently, knowing exactly what steps to take and where to go. It also promotes communication and coordination, allowing everyone to conduct synergetic tasks, and instilling a sense of control within the situation.

Activating the emergency communications plan can have several triggers. Not all of them are obvious, such as a natural disaster, but there may be a need to activate the plan for less obvious incidents, such as a cyber-attack or interruption of the command-and-control systems. For this reason, it is imperative that the communication systems are functional for these unforeseen events. However, for planned events, the alternative communication systems undergo tests prior to the event to ensure their operation.

5.1 PACE

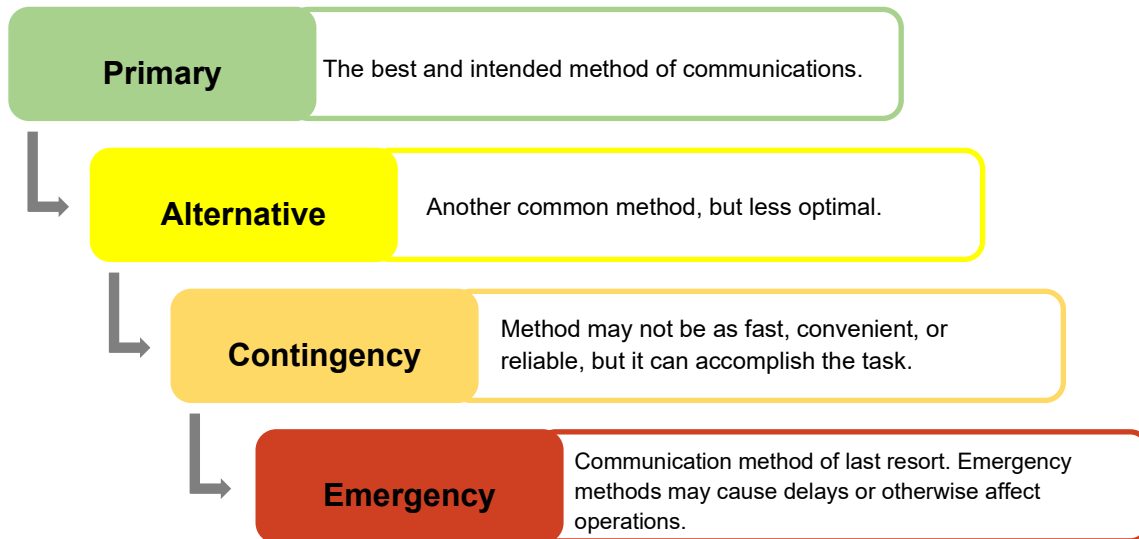
Maintaining operability, interoperability, and continuity of emergency communications is critical for emergency response, regardless of the operating conditions. Primary, Alternate, Contingency, and Emergency (PACE) communications plans are a tool for helping organizations prepare for backup communications capabilities in out-of-the-ordinary situations.

PACE planning helps organizations establish options for redundant communications capabilities if primary capabilities are disrupted or degraded. Perfect situational awareness is not always possible, and communications may be impacted by environmental factors affecting infrastructure, equipment, and users. The PACE concept takes redundancy beyond the typical planning of having a primary means and a backup. A PACE plan is triggered when the primary capability becomes unavailable.

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Figure 3: PACE Flowchart.



Alternate forms of communications have been established for use if primary systems fail, including Landlines in the LEOC and the ROCCs, satellite telephones and FirstNet Cellular service, town hall meetings, and runners. A list of all numbers is shared with key stakeholders, mayors, PREPA, and Genera-PR. Telephones and FirstNet testing networks are done periodically. Table 1 depicts LUMA's PACE communication plan for situations of primary system disruption or degradation.

The effective and timely activation of the LEOC is critical for the success of the response.

Table 1: PACE Description.

PACE Communication Plan				
Primary	Landlines	Cellphones	LAN	WIFI
Alternative	Cellphones	Hot Spots (Wifi)	First Net	-
Contingency	Satellite Systems	-	-	-
Emergency	HF Radios	Runners	-	-

5.2 Communication Readiness

Maintaining emergency communications capability before, during and after emergencies is critical for sharing life-saving information. LUMA has multiple backup communications capabilities to ensure that the mission can still be accomplished if primary systems are lost or degraded. It is important to properly test the backup system to achieve this level of preparedness.

LUMA's backup communication system is regularly tested and evaluated to confirm it is operational and reliable.

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Annually, LUMA will conduct a communication-specific tabletop exercise (TTX) to evaluate the current plan, concept, and resources. As well as interoperable capabilities and gaps. Following the completion of a TTX, an AAR feeds into the process Improvement Plans (IPS) containing specific initiatives to improve communications interoperability in the participating community. Exercise Methodology should be used with the general principles for planning and conducting effective exercises put forth by the Department of Homeland Security (DHS). It should also adhere to the Homeland Security Exercise and Evaluation Program's (HSEEP) guidelines.

5.2.1 FirstNet®

Built within AT&T, it is a network for first responders and those who support them. Subscribers always maintain priority across the LTE-Band 14 spectrum plus all AT&T's commercial LTE spectrum bands. LUMA employees with company cell phones have this service.

5.2.2 Satellite Systems for Wi-Fi

Information Technology (IT) /OT has a mini CRD, a portable FirstNet deployable kit contained in two ruggedized cases. This system allows you to create your own FirstNet Cellular and Wi-Fi hotspots, even in the most remote environment. The mini CRD will be located where it is most needed based on the LEOC IC guidance and priorities.

5.2.3 Satellites Phones

The use of satellite phones is for situations where all other telecommunication capabilities are unavailable. The use of this capability would allow the continuity of emergency operations and support all restoration activities in a safe and coordinated manner.

In the event of hurricanes or severely adverse weather conditions, all LUMA regions (ROCCs) and identified response personnel with satellite phones are instructed to have their satellite phones ready as a contingency measure according to the PACE plan.

The need for a satellite phone directory, both internally and externally, with stakeholders, stems from the inherent unpredictability and potential disruption of traditional communication channels during emergencies. Satellite phones offer reliable communication in remote areas or when traditional networks fail, making them vital for maintaining connectivity in crisis situations. By having an updated directory in the SharePoint of the Emergency Preparedness Department Satellite Phone List.xlsx, LUMA responders can quickly access essential contact information, ensuring efficient coordination and response efforts during emergencies. Continuous updates are crucial to reflect any changes in contact details, ensuring the accuracy and effectiveness of the communication network when it's needed most.

Each employee with an assigned satellite phone has the responsibility to inspect and test their satellite phone monthly, which serves the double purpose of testing the equipment and keeping the directory updated. Below are the steps to follow to ensure that the satellite phone works correctly when you need it.

- Check the antenna: One of the most common causes of problems with satellite phones is a damaged or improperly positioned antenna. Make sure the antenna is fully extended and pointing toward the sky. If you notice any damage to the antenna, contact the Emergency Preparedness office.

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- Make sure you have a clear line of sight: Satellite phones require a clear line of sight for the satellite to function properly. Make sure you are outside and away from any obstructions, such as buildings or trees, that may be blocking the signal.
- Test the SIM card: If you are having problems with your satellite phone, the SIM card may be damaged or not inserted correctly. Remove the SIM card from your phone, inspect it for visible damage, and reinsert it, making sure it is seated correctly.
- Check the battery: A weak or dead battery can cause a variety of problems with your satellite phone. Make sure the battery is fully charged and in good working condition. If you suspect your battery may be defective, contact the Emergency Preparedness office for further instructions.
- Restart your phone: If you are having problems with your satellite phone, a simple restart may solve the problem. Turn off your phone, remove the battery, wait a few seconds, then reinsert the battery and turn on the phone again. This will fix any temporary issues that may be affecting your phone's performance.
- Update Firmware – Outdated firmware can cause compatibility issues and other problems with your satellite phone. Please refer to your phone's user manual or contact your service provider for instructions on how to update your phone's firmware. IT/OT personnel can assist in updating it.
- Check for interference: Electronic devices, such as computers and other communications equipment, can cause interference with your satellite phone signal. If you are having problems with your satellite phone, try moving away from any potential sources of interference to see if the problem resolves itself.
- Try the phone in a different location: If you are having problems with your satellite phone, the problem may be related to your current location. Try using your phone in a different area to see if the problem persists. If the issue is location-specific, it may be due to a temporary issue with the satellite network or a local environmental factor.

5.2.4 Emergency Means of Communication

LUMA Regional Interagency Coordinators (LRIAC) at each PREMB zone EOC and LUMA's Interagency Coordinator at PREMB EOC will have situational awareness from their assigned location. LRIAC will share all relevant information with LEOC using these EOC's means of communication to have a common operational picture with all responding assets. Also, LUMA can request PREMB assistance through PREPA to establish communication platforms where needed to expedite the recovery efforts. In situations where LEOC does not have communication, runners will be assigned to relay information and reports to and from PREMB's EOC. This will be dependent on PREMB's EOC battle rhythm, and LEOC needs as per the IC objectives.

ICS 205A form is recommended, and subject to the situation, to be used to capture contact methods with numbers other than traditional ones (e.g., satellite phones). The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager

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numbers, etc.), and functions as an incident directory. The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period and distributed within the ICS organization by the Communications Unit and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

6.0 Terms

- 1) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 2) **Critical Facilities** – Identified as Level 1, 2, or 3 facilities that provide services that are critical to the health and safety of the public and are tied to at least one of the seven critical Community Lifelines. Examples include hospitals, fire/police stations, restoration staging areas, and communications facilities.
- 3) **Damage Assessment** – A mechanism utilized to determine the magnitude of damage and impact of disasters.
- 4) **Demobilization** – The ongoing process of disengaging response resources as incident objectives are met and returning them to their normal function.
- 5) **Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, or multiple injuries and exceeds the response capability of the local jurisdiction and requires the Government of Puerto Rico, and potentially Federal, involvement.
- 6) **Emergency or Emergency Event** – Any outage event, as per the T&D Operational Management Agreement OMA; declared emergency or major disaster; or event, whether natural or man-made, that requires responsive action to protect life, property, or operational capacity where LUMA has deemed it an Emergency or necessary to activate the LER.
- 7) **Emergency Operations Center** – The physical locations at which coordination of information and resources to support incident management activities occurs.
- 8) **Emergency Response Plan** – A comprehensive plan that provides the concept of operations for response to emergency situations and other extraordinary events consistently and effectively.
- 9) **Information Sharing** – For this guide, information sharing is the timely, accurate, and actionable exchange of information within LUMA as well as between private organizations, public organizations, and the public.
- 10) **Major Outage Event** – An event because of which (i) at least two hundred and five thousand (205,000) T&D Customers are interrupted for more than 15 minutes or (ii) at any point in time during the event, there are one thousand five hundred or more ($\geq 1,500$) active outage events for the T&D System, which are tracked in the Outage Management System (“OMS”).
- 11) **Situational Awareness** – The ability to identify, process, and comprehend critical information about an incident.

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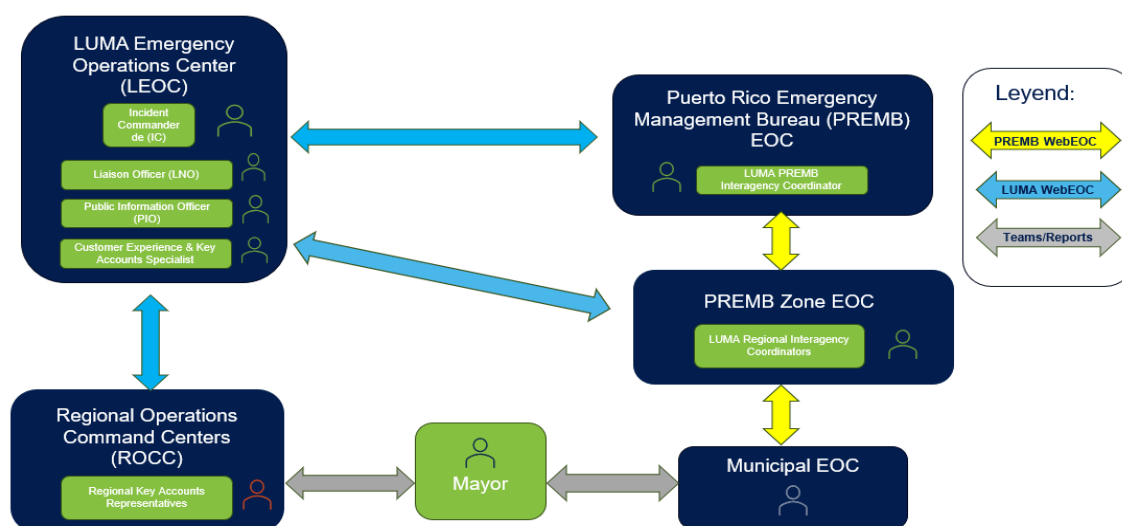
Appendix A: Governmental Stakeholder Communications

This is an example of the (2-sided) one-pager distributed to governmental stakeholders to highlight the communication channels during an emergency.

Communications with Municipalities in an Emergency

Communication between LUMA and each of the 78 Municipalities in Puerto Rico is an essential element of effective emergency response. LUMA is committed to regular and transparent communications with all mayors in an emergency. To ensure a coordinated response, it is critical that LUMA and Municipalities/Mayors follow the lines of communication established in accordance with the NIMS. An overview of the key roles involved in this process is outlined below:

Figure 4: LUMA's ERP outlines how LUMA will communicate with government officials in an emergency.



Notifications

During an emergency event, through its activated Interagency Coordinators, LUMA provides reports to government agency representatives or other government officials that contain detailed information related to emergency conditions and restoration status for each affected region. During emergency events, the PREMB, based on the PREMB EOCs, directs, and supports emergency preparedness and response activities across the Government of Puerto Rico.

Representatives of PREPA, Genera, and other agencies may also be activated in the PREMB EOC during incident response. The activation of the LEOC may coincide with the PREMB EOC, and the LUMA PREMB Interagency Coordinator may be requested in their EOC. The role of the LUMA PREMB Interagency Coordinator is to facilitate formal and informal two-way communication between LUMA and PREMB.

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LUMA Regional Interagency Coordinators

When PREMB Zones EOCs are activated, the LNO activates the LUMA Regional Interagency Coordinators (LRIACs). The primary role of an LRIAC is to be the LUMA point of contact in the PREMB zones EOCs to communicate regional emergency-related priorities to the LEOC. The LRIACs also assist the PREMB zones EOCs in determining if regional T&D System emergencies or outages have been reported to the LUMA Contact Center or LEOC. The LRIACs may be supported by a LUMA Regional Key Account Representative who has established steady-state relationships with mayors.

Meetings with Government of Puerto Rico Officials

Throughout the year, LUMA meets with Government of Puerto Rico officials, federal partners, and other stakeholders. Documentation of the exercises, workshops, and meetings, such as presentations, attendance lists, meeting minutes and action items, and statuses of identified action items are submitted.

Communication with Municipal Officials

During an emergency event, through the activated LRIACs, LRIACs provide updates to PREMB zone Emergency Managers. LUMA Regional Key Accounts Representatives provide updates to municipal representatives or their designers that contain detailed information related to emergency conditions and restoration performance for each affected municipality. Methods of communication may be carried out by, but are not limited to, the following:

- Scheduled conference calls with municipal officials, including emergency managers.
- Community Liaison communications (telephonic, electronic, or face-to-face) with municipal officials, including emergency managers.

The type of information shared will include situational awareness information regarding the affected municipality. Such as the status of emergency conditions, outage and restoration information, priority down wire locations, critical facilities impacted by the emergency event, and notification reports in accordance with the LUMA Major Outage Metrics.

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LUMA Energy

NEPR-MI-2019-0006

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List of Acronyms

ACRONYM	DEFINITION
AAR	After Action Report
CPG	Comprehensive Preparedness Guide
EOP	Emergency Operations Plan
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
ICS	Incident Command System
IP	Improvement Plan
LEOC	LUMA Emergency Operations Center
MOE	Major Outage Event
NIMS	National Incident Management System
NRF	National Response Framework
OE	Outage Event
ROCC	Regional Operations Command Center
ROI	Return of Investment
T&D	Transmission and Distribution

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Annex H – Preparedness Training

1.0 Purpose

LUMA's Emergency Preparedness Training Annex H is designed to increase disaster preparedness and response capabilities, resulting in the safe and reasonably efficient restoration of service during an emergency event. The program is based on a continuous cycle of plan development and exercising the plans and procedures to ensure they are effective. This annex considers the range of preparedness activities within the Preparedness Cycle and, along with the guidance provided by senior leaders, identifies and sets preparedness priorities and schedules preparedness activities.

2.0 Scope

This Annex establishes the requirements for the Emergency Preparedness Training Plan at LUMA. Training is one of the most important elements of a comprehensive emergency preparedness program. This Annex applies to all LUMA employees.

3.0 Situation and Assumptions

3.1 Situation

It is LUMA's policy to prepare employees for both personal (including family) and company emergency preparedness and response procedures. Every employee is expected to participate in preparedness activities throughout the year, including planning, training, and exercise activities related to their assigned Emergency Response Plan (ERP) role. Creating a culture of preparedness results in operational excellence during activations of the ERP. This commitment underscores the organization's dedication to ensuring the safety and well-being of its workforce and the communities it serves.

Identified below are additional information and considerations regarding LUMA Emergency Operation Center (LEOC) activation, but are not limited to the following:

- The primary LEOC is located at 1110 Av. Juan Ponce de León, San Juan, 00907, Puerto Rico.
- LUMA Energy provides electric services to approximately 1,470,000 customers in 78 municipalities in Puerto Rico.
- LUMA is responsible for the development and maintenance of the ERP. Regular reviews and updates to the ERP will occur to reflect lessons learned from exercises, real-world incidents, and advancements in emergency management best practices.
- A variety of Major Outage Events (MOE) can adversely impact the integrity of Puerto Rico's Transmission and Distribution (T&D) System, triggering LEOC activation.
- Every employee is expected to actively engage in preparedness activities throughout the year, including planning, training, and exercise activities relevant to their assigned roles within the ERP.
- LUMA operates in compliance with relevant regulations and standards governing emergency preparedness and response in the utility sector.

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Annex H – Preparedness Training

3.2 Assumptions and Considerations

LUMA's ability to respond to and recover from any type of incident that may affect the T&D System is critical. The concepts for the response, restoration, and recovery are outlined within the ERP – Base Plan and Annex A, Major Outage Restoration. Identified below are additional assumptions and considerations regarding LEOC activation, which include, but are not limited to, the following:

- LUMA is responsible for the development and maintenance of the ERP. The ERP will be activated when a LEOC activation occurs.
- In the event of an emergency or disaster, LUMA response personnel and their families may be impacted, affecting the accessibility of needed human resources in the LEOC, and the field.
- An Outage Event (OE) or MOE may occur at any time of the day or night, regardless of weekends or holidays, with little to no warning, requiring a LEOC activation.
- Response to all OEs should be guided by the principles of the National Response Framework (NRF), National Incident Management System (NIMS), and the Incident Command System (ICS).
- Due to the island's geographic location, not on mainland, available resources during an emergency may be limited to those on island. The arrival of additional support from pre-positioned contracts or mutual aid partners in the mainland may be delayed, potentially taking several days or weeks depending on the circumstances.
- Effective emergency response often requires collaboration among multiple departments. The training annex assumes the need for cross-departmental coordination and cooperation to ensure comprehensive preparedness.
- The training will accommodate cultural and linguistic diversity among participants, ensuring that training materials and methodologies are accessible and inclusive.

4.0 Concept of Operations

Day-to-day outages do not require formal activation of the LEOC. When incidents increase complexity and become typed as OEs, a higher level of coordination and resources are required outside of the immediate capabilities or availability. In the case of LEOC activation, personnel must be trained and prepared for the emergency role within the operation.

This section encompasses all aspects of emergency training, including planning, execution, evaluation, and refinement, to ensure effective preparedness and response capabilities. The primary objective of the emergency training annex is to enhance the preparedness and response capabilities of LUMA personnel and stakeholders by providing comprehensive and realistic training scenarios.

Training courses are catered to a diverse audience, including LUMA staff, and partner agencies, with tailored training modules based on their roles and responsibilities.

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Annex H – Preparedness Training

The training annex establishes mechanisms for ensuring the continuity and sustainability of training efforts over time, including regular updates to training materials, refresher courses, and ongoing professional development opportunities for personnel.

5.0 Objectives

The objectives of this Annex are the following:

- **Emergency Awareness:** Ensure all staff understand various emergency scenarios and are aware of potential risks.
- **Response Protocols:** Train employees in clear and effective procedures to follow during emergencies to ensure a swift and coordinated response.
- **Leadership and Decision-Making:** Develop leadership skills to empower designated individuals to make informed decisions during emergencies.
- **Exercise the Training:** Conduct regular simulated emergency drills to test the effectiveness of the training and identify areas for improvement.
- **Post-Emergency Protocols:** Train employees on post-emergency procedures, including reporting, debriefing, and recovery efforts.

6.0 Responsibilities

LUMA will commit to the availability of resources to ensure that employees receive emergency preparedness training and that their skills align with their emergency job requirements. This includes providing ongoing professional development, and resources for skill enhancement. Training will be relevant, accessible, and adapted to evolving trends and best practices. Employees will receive emergency preparedness training during the following circumstances:

- Whenever a person is hired.
- Whenever an employee is given a new job assignment.
- When new trends or best practices are introduced.

6.1 LUMA Administration

The administration is dedicated to allocating the essential funds and scheduling dedicated time to ensure the effectiveness of emergency preparedness and response training. This commitment encompasses providing paid work hours for training, utilizing language-appropriate materials, and facilitating access to required equipment for online courses, particularly when daily job responsibilities do not inherently involve computer access.

6.2 Emergency Preparedness Department

- Oversee LUMA Emergency Preparedness Training Annex H, including the development, implementation, and evaluation of the annex.

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Annex H – Preparedness Training

- Provide consultative assistance on general emergency preparedness and response courses, provided by LUMA.
- Provide technical assistance to emergency preparedness and response course instructors.
- Review emergency preparedness and response courses to ensure proper qualifications of the trainer and training content.
- Ensure accessibility considering diverse needs, such as language proficiency or access and functional needs.
- Maintain accurate information on training offered to employees throughout the Workday.
- Assign, when necessary, emergency preparedness and response training throughout the Workday.
- Complete attendance process and award completed training hours through Workday.
- Update and modify this Annex, policies, and procedures that pertain to LUMA emergency preparedness, as necessary.

6.3 Leadership

Directors, Managers, and Supervisors will be given mandatory and emergency assigned role training. They will commit necessary resources to ensure employees understand the responsibilities below and the reasons for them:

- Participating in the mandatory individual training, drills, and exercises.
- Follow up training, drills, and exercises reminders from the Emergency Preparedness Department.
- Providing physical resources and psychosocial support that promote safe work.
- Providing performance feedback and effective recognition and discipline techniques.
- Conducting on-the-job training, as necessary.

6.4 Employees

Per the Policy and Procedure for Emergency Preparedness Trainings, every LUMA employee is expected to participate in preparedness activities throughout the year, including planning, training, and exercise activities related to their assigned ERP role. Creating a culture of preparedness results in operational excellence during activations of the ERP.

LUMA employees are required to complete the Federal Emergency Management Agency (FEMA) ICS training, IS 100, at a minimum, which provides a foundational overview of ICS and how LUMA prepares, responds, and recovers from emergency events. Additional training is required for personnel with an ICS role in the LUMA Emergency Roster (LER). The training includes ICS protocols for Command staff and General staff in the LEOC and ROCCs.

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Annex H – Preparedness Training

7.0 Training and Accountability

Emergency training is crucial for LUMA employees as it enhances preparedness to handle power-related crises, minimizes response time during outages or emergencies, ensures efficient coordination among personnel, and improves the overall response to incidents. This contributes to the resilience of the electric grid, helping restore power swiftly and minimizing disruptions for customers during unforeseen events.

To uphold the Policy and Procedure for Emergency Preparedness Trainings for the safety of the LUMA community, non-compliance with the mandatory training requirement will be addressed under the Corrective and Progressive Discipline Policy.

8.0 Training Plan

Completion of mandatory emergency training courses ensures that all LUMA personnel possess essential knowledge of response procedures, the NIMS, job-related tasks, and the safe execution of operations. The Emergency Preparedness Department categorizes these courses for each job classification, assigning relevant training through formal classroom sessions or Workday Learning. Supervisors could assign additional training based on job analyses to enhance personnel preparedness.

9.0 Documentation

An organized record-keeping system will be employed to manage all records and documents, ensuring they are easily retrievable, identifiable, and maintained in an orderly manner. Records must be current, accurate, legible, and appropriately dated, including revision dates, when applicable. Moreover, they should be relevant, applicable, and compliant with regulatory or legislative requirements. Workday will serve as the repository for training records of all employees.

10.0 Learning Management System

Workday is a cloud-based platform that includes training and certification management. It is the centralized system where LUMA stores and tracks employee training and certification records to monitor compliance, plan future training, and ensure workforce readiness. Employees can access and update their training information, search for course offers, and enroll in either self-directed or in-person offers.

11.0 Types of Training

Every employee is expected to participate in preparedness activities throughout the year, including planning, training, and exercise activities related to their assigned ERP role. These components complement each other, contributing to a well-rounded training program that addresses individual competencies, external industry advancements, and the collective efficiency of the team.

11.1 Individual or self-directed training:

- Does not require in-person classroom training.
- Focuses on enhancing the skills and knowledge of each team member.

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- Tailored to individual roles and responsibilities.
- Examples include job-specific skill development, personal growth, and task proficiency.

11.2 External Training:

- Involves learning experiences conducted by external experts or resources.
- Can include workshops, seminars, or courses organized outside the organization.
- Provides exposure to industry best practices and new perspectives.

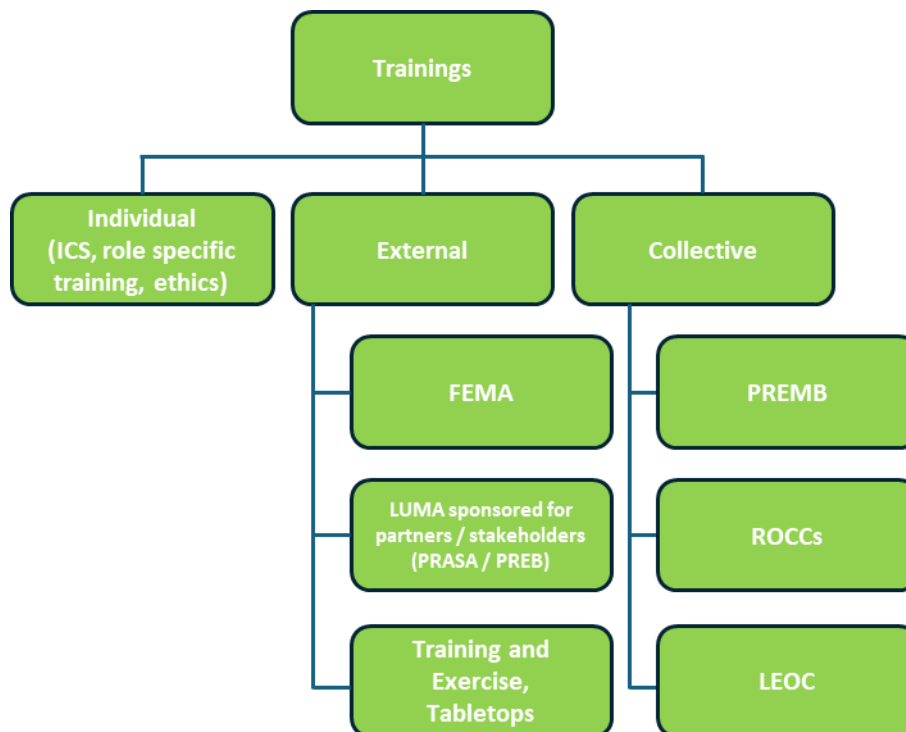
11.3 Collective Training:

- Concentrates on improving teamwork, communication, and coordination among team members.
- Often involves group exercises, simulations, or team-building activities.
- Aimed at fostering a collaborative and cohesive work environment.

11.4 Emergency Role-Specific Training

LUMA provides position-specific training for personnel whose response or restoration responsibilities differ from tasks they normally perform on a regular basis. In addition to skill-based training related directly to their ERP assignment, the training includes ICS protocols for Command staff and General staff in the LEOC and Regional Operations Command Centers (ROCCs).

Figure 1: Types of Training.



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12.0 Evaluation

LUMA is committed to continuous improvement, exemplified by our rigorous evaluation processes that ensure ongoing refinement and excellence in all aspects of our work. By implementing a robust evaluation process and a well-rounded training plan, the Emergency Preparedness Department can enhance the effectiveness of disaster response training and better prepare responders for real-world challenges.

12.1 Individual Training Evaluation

The Emergency Preparedness Department has established an assessment protocol to identify possible areas of improvement and validate knowledge. This is achieved by:

- Assessing participants' understanding of key concepts related to disaster response, including incident command, triage, and specific response procedures.
- Using quizzes or written assessments to measure comprehension and retention of critical information.
- Conducting tabletop and practical exercises to evaluate participants' ability to apply learned skills in simulated disaster scenarios.
- Distributing a questionnaire or evaluation after the training and exercises to evaluate the instructor and provide a space for suggestions from participants. Appendix A contains an example of such a questionnaire.

12.2 Training Evaluation

Constant assessments of the training annex's efficacy will gauge its success in enhancing employee safety and performance within the realm of emergency response. A meticulous evaluation, when thoughtfully crafted and executed, will pinpoint strengths in the training plan while also revealing areas requiring adjustment or enhancement.

Pre-Training Assessment:

- Achieved by conducting a needs assessment to identify specific skills gaps, roles, and responsibilities and tailoring the training content based on the identified needs and the types of disasters the team may encounter.
- Ensuring that participants have ongoing access to updated information and resources after the training.

Post-Training Support:

- Establishing a system for ongoing support and feedback to reinforce learning skills.
- Offering refresher courses, periodic drills, and opportunities for continuous improvement.

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- Evaluation will include analysis of employee attendance at training sessions. Training will not work for an employee who does not show up. Absenteeism can signal a problem with the worker, but it can also indicate a weakness in training content and presentation.

13.0 After Action Report

The After-Action Report (AAR) serves to evaluate the effectiveness of a response or training, identify strengths and areas for improvement, and document lessons learned. It helps in refining future training programs by providing a structured analysis of what worked well and what could be enhanced. This section aids in continuous improvement, ensuring that training objectives align with organizational goals and participant needs.

13.1 AARs' goals

- Better collaboration and discussions: AARs encourage all staff to participate in team discussions. AARs help them learn more about themselves and develop effective strategies for working collaboratively.
- Results-oriented work: By introducing a collaborative learning narrative, AARs help employees visualize and focus on the results of their work. This makes it easier to identify ways to maintain effective strategies and improve those that have failed.
- Better Risk Management: The AAR process focuses on providing leaders with tools to help their teams overcome current and future obstacles in the workplace. Facilitates change and creates opportunities to develop risk management skills.

13.2 AAR process

The Emergency Preparedness Department oversees these reviews and achieves the expected goals by:

- Communicating the review -To make the review a priority, the emergency preparedness department organizes logistics meetings as early as possible. It is crucial to accommodate key players' schedules, ensuring their attendance. In situations where in-person meetings are not feasible, the alternative is to conduct them remotely.
- Gather supporting materials - Collecting all pertinent materials for the meeting, such as project plans, budgets, timelines, and other event-related data. Sharing these materials with attendees at least a day before the review informs them about expectations and facilitates preparation.
- Explain what was expected to happen – Review the event plan and discuss the expected results to occur because of the actions.
- Discuss what happened – Using event performance data to discuss what really happened. This step serves to present the facts objectively, without passing judgment or drawing conclusions.

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- Outlining what went well and explaining why – After explaining what happened as part of the event you're discussing, focus on what went well. Once all the positive factors are identified, brainstorm ideas to repeat the same success again.
- Explain what failed and why – Aiding the team in understanding how to enhance overall efficiency and performance. Thoroughly review supporting materials to determine strategies for improvement in subsequent events.
- Share conclusion and learning materials - In this way, you make it possible for everyone within the LUMA to learn new strategies to avoid specific mistakes when participating in various events, helping the organization grow. The way the lessons learned are shared within the organization is through the report, After Action Report. This report identifies areas where the ERP has areas for improvement. Make recommendations for improvement and capture lessons learned.

14.0 Training Calendar

A Multi Year Training and Exercise Plan (MYTEP) is a valuable tool for organizations and individuals alike. It helps plan, organize, and implement training activities throughout the year. Here are some key reasons highlighting the importance of a yearly training calendar:

- Strategic Alignment:
 - Ensures that training initiatives align with the overall strategic goals and objectives of the organization.
 - Helps in prioritizing and addressing specific skill gaps or knowledge areas essential for business success.
- Consistency and Continuity:
 - Provides a structured approach to training, promoting consistency in the delivery of learning programs.
 - Enables a continuous learning environment, preventing gaps in employee development.
- Resource Planning:
 - Allows for efficient allocation of resources such as trainers, training materials, and facilities.
 - Helps organizations manage budget constraints by planning and distributing training costs over the course of the year.
- Employee Development:
 - Supports the ongoing development of employees by offering a variety of training programs.
 - Facilitates career planning and progression by addressing the diverse needs of employees at different levels and roles.

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- Compliance and Regulatory Requirements:
 - Ensures that mandatory training, compliance-related sessions, and regulatory requirements are scheduled and completed on time.
- Adaptability to Change:
 - Allows organizations to adapt training plans in response to changing business needs, industry trends, or technological advancements.
 - Promotes agility in responding to emerging skill requirements.
- Evaluation and Feedback:
 - Provides a framework for evaluating the effectiveness of training programs.
 - Allows for the collection of feedback, enabling continuous improvement in training methodologies.
- Measurable Outcomes:
 - Facilitates the establishment of clear learning objectives and measurable outcomes for each training program.
 - Supports the assessment of the return on investment (“ROI”) in terms of improved performance and productivity.

The MYTEP , referenced in the Base Plan, under section 12.3 Training, serves as a roadmap for learning and development activities, ensuring that organizations and individuals invest their time and resources strategically to achieve long-term success.

The training plan is categorized into individual, external, and collective. Individual training refers to the process of acquiring new skills, knowledge, or competencies to improve capabilities and performance. This type of training is often tailored to an individual's specific needs, goals, and career aspirations. It also benefits organizations by fostering a culture of continuous improvement and innovation. Section or external training generally refers to training initiatives or programs designed for specific sections or departments within a LUMA. These training efforts are designed to address a particular section or functional area's unique needs, challenges, and objectives. Collective training is essential to build a cohesive and high-performing team. It contributes to improving teamwork, increasing productivity, and a positive organizational culture. By focusing on the collective development of a group, LUMA can strengthen its overall capabilities and achieve better results.

15.0 Annex Development and Maintenance

This Annex is a living document. Development and maintenance of this Annex are in conjunction with the LUMA ERP. Proposed changes should be sent to the Emergency Preparedness Department of Operations for approval and inclusion.

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Please reference the LUMA ERP – Base Plan, Section 13, Plan Development and Maintenance, for additional information.

16.0 Terms

- 1) **After Action Report** – A document intended to capture observations of an exercise/event and make recommendations for post-exercise improvements. The final AAR and Improvement Plan (IP) are published and distributed jointly as a single AAR/IP.
- 2) **Assumptions** – Operationally relevant parameters expected and used as a context, basis, or requirement for the development of response and recovery plans, processes, and procedures.
- 3) **Business Continuity** – A set of activities that identifies potential impacts that threaten an organization and provides a framework for building resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, and value-creating activities.
- 4) **Capability** – The ability to achieve a specific outcome with an applicable combination of planning, organization, resources, and trained and exercised personnel. Emergency Management and Business Continuity capabilities are those that are needed collectively to prepare for, respond to, and recover from events with the potential of impacting the operational and business functions of LUMA.
- 5) **Check-In** – The process necessary to receive and begin accounting for incoming external resources to enable them to participate in emergency restoration activities safely and effectively.
- 6) **Comprehensive Preparedness Guide (“CPG”) 101** – Provides FEMA Guidance on fundamental planning and developing emergency operations plans (“EOPs”).

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Appendix A: Individual Training Evaluation

For every training course the Emergency Preparedness department offers a QR code that contains a series of evaluation questions to foster continuous improvement. Format as follows:

TRAINING EVALUATION FORM – .

1. The training met my expectations.
 - ☐ Strongly Agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
2. I will be able to apply the knowledge learned.
 - ☐ Strongly Agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
3. The content was organized and easy to follow.
 - ☐ Strongly Agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
4. The materials distributed were useful.
 - ☐ Strongly Agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
5. The trainer was knowledgeable.
 - ☐ Strongly Agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
6. The trainer met the training objectives.
 - ☐ Strongly Agree
 - ☐ Agree

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- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

7. Class participation and interaction were encouraged.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

8. Adequate time was provided for questions and discussion.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

9. How would you rate the training overall?

- ☐ Excellent
- ☐ Good
- ☐ Average
- ☐ Poor
- ☐ Very poor

10. What aspects of the training could be improved?
