EXHIBIT 1

LUMA

Introduction - Hurricane Fiona Requests of Information

NEPR-MI-2022-0003

November 18, 2022

1.0 Introduction

LUMA appreciates the opportunity to respond to the Energy Bureau's Request of Information (ROI) with respect to LUMA's response to Hurricane Fiona. LUMA has prepared this introductory document in order to establish a common understanding of LUMA's implementation of the Emergency Response Plan (ERP) framework and the response and restoration timelines referenced in the ROIs. It is recommended that this document is reviewed in its entirety prior to review of the ROI responses as the responses often make references to the topics discussed below in Section 2.0 LUMA's Emergency Response Plan and Section 3.0 Hurricane Fiona Timeline.

Hurricane Fiona was a Category 1 hurricane with winds over 100 miles per hour, over 30 inches of rain, severe flooding, and widespread damage to local and electric infrastructure across Puerto Rico. The severity of Fiona directly contributed to significant damage to critical parts of the electric grid and generation facilities. LUMA's response and restoration efforts, which included close coordination with Federal and Puerto Rican emergency agencies, represented a historic undertaking that has never been seen before in Puerto Rico.

LUMA's emergency response to Hurricane Fiona follows a 15-month effort to overcome years – if not decades – of profound operational neglect and lack of maintenance by the previous operator. Even before starting operations in June 2021, LUMA focused intensely on training, planning and preparing for an event like Hurricane Fiona which included for example, over 10,000 hours in emergency response training on FEMA's National Incident Management System as well as providing field crews with proper safety equipment and roadworthy vehicles—training and equipment that were absent under the Puerto Electric Power Authority (PREPA).

With respect to our emergency response, on and around September 14, 2022, LUMA began formal preparations for responding to Hurricane Fiona. To support this historic restoration, LUMA prepositioned and deployed resources across Puerto Rico to being to respond to the significant devastation brought by Hurricane Fiona and restore power to customers as quickly and safely as possible. Throughout the duration of restoration efforts, LUMA took the following actions:

- Activated the LUMA Emergency Operations Center and deployed LUMA representatives to the central government's Emergency Operations Center;
- Activated six regional operations centers in LUMA's six different service regions;
- Mobilized 1,300 LUMA field workers, including lineworkers and substation technicians, who are trained and available to respond to serious emergencies;
- Maintained our 1,800 fleet units fueled and ready to deploy for emergency response;
- Kept the approximately $130 million inventory of transmission and distribution material available and on-hand to respond to emergency events (more than five times the inventory that was on the island immediately prior to Hurricane Maria);
- Deferred all planned reliability work in order to prioritize and dedicate all available resources to storm response;

- Coordinated with the Puerto Rico Emergency Management Bureau (PREMB), PREPA, FEMA, the U.S. Department of Energy Support Function #12 Annex (ESF #12 Annex) and other government agencies to coordinate a unified response;

- Conducted proactive outreach to essential service providers like hospitals;

- Coordinated restoration work to prioritize Community Lifelines, including health, safety, transportation and communications facilities; and

- Pre-deployed equipment and resources in Puerto Rico to respond to possible impacts from the storm and maintained contact with mutual aid providers so that in the event of the need for additional response resources, the Caribbean Electric Utility Services Corporation (CARILEC), the Edison Electric Institute (EEI) and the American Public Power Association (APPA) could provide assistance with restoration efforts.

The electric grid, which was already fragile prior to the storm, was severely damaged by the severity of Hurricane Fiona, especially in the Ponce, Mayagüez and some of the central highland regions that suffered widespread damage to roads and local critical infrastructure. Overall, LUMA documented clear and significant damage to the island's electric transmission and distribution system from Hurricane Fiona including:

- 35% of transmission line segments sustaining damage,

- 56% of distribution feeders sustaining damage, and

- Seven substations experiencing severe flooding (submerged in water) or were rendered inaccessible.

Given the substantial impact of Hurricane Fiona on the T&D System, coupled with the fragility of the grid prior to Fiona, the result was an island-wide blackout leading to more than 1.5 million customers experiencing outages.

As part of our emergency response and restoration efforts, LUMA utilized more than 2,500 utility workers and more than 2,500 vehicles, including seven helicopters, to restore power to its customers and the grid. Among the actions taken included:

- Using helicopters to perform damage assessment and restoration work. In total, LUMA aerial assets conducted over 239 total flight hours and flew over 12,000 nautical miles.

- In addition to LUMA's normal workforce, eight local contractor companies, as well as crews a leveraged from Quanta Services, one of its parent companies, resulted in the deployment of an additional 221 lineworkers, 56 bucket trucks, and 22 diggers.

- Workers were directed from six regional operations centers, which were overseen by a centralized LUMA Emergency Operations Center, which coordinated with the System Operations Control Center in San Juan and a mobile emergency operations center in Guayanilla on the southern coast.

As part of a coordinated communications strategy during the emergency response, LUMA took a series of actions to keep the public informed including:

- 435 total public updates to the general public on hurricane response and disaster recovery efforts
- 1,759 radio announcements
- 1,135 social media updates
- 34 videos posted online showing extent of damages and ongoing recovery efforts

Following the completion of its restoration efforts, and as part of our commitment to transparency, LUMA publicly provided a document titled Hurricane Fiona Response and Restoration Event Summary, with responsive statistical information regarding the response to the emergency related to the passing of Hurricane Fiona through Puerto Rico. Based on our understanding, this summary represents the most comprehensive collection of detailed restoration data and information ever provided to the public so soon following a hurricane in Puerto Rico.

2.0 LUMA's Emergency Response Plan

LUMA's ERP establishes a structured framework for the management of and response to emergency events that affect Puerto Rico's T&D System. It provides the structure and mechanisms for LUMA's coordination of power restoration throughout Puerto Rico. A thorough review of the ERP is carried out at least annually and revised as necessary. LUMA leaders and subject matter/technical experts with responsibilities in the ERP review its contents and participate in training and tabletop exercises to prepare for emergencies like Hurricane Fiona. As a result, the ERP is a living document and LUMA may adjust or modify the plan as needed. Every emergency event has its own set of particular circumstances, challenges, and uncertainties. It is therefore critical that some flexibility be built in to the ERP so that decisionmakers can most effectively prepare for and respond to emergencies affecting the electrical system.

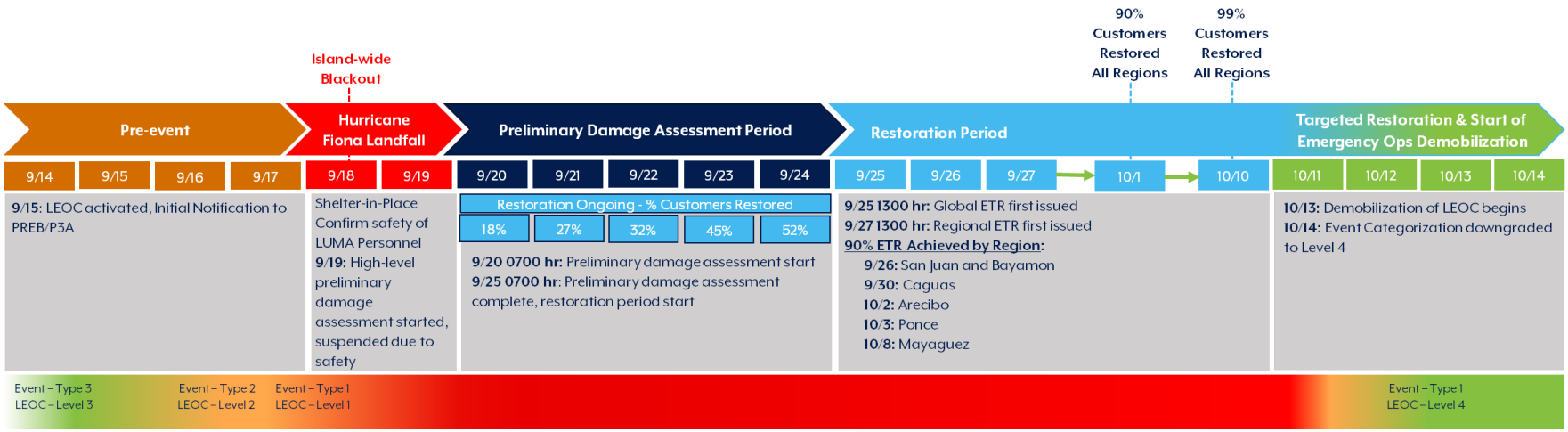
The LUMA Emergency Response Organization is aligned with the National Incident Management System (NIMS) developed for the United States and aligned with FEMA and utilizes an Incident Command System (ICS) structure. The ICS is a framework that allows LUMA to be agile in an emergency by helping establish command and control, coordinate resources, and plan and communicate responsive activities and actions within tight timeframes. ICS is flexible, scalable, and can be used and adjusted for any size emergency response.

LUMA's ERP is intended to establish an operation and tactical comprehensive framework for LUMA's response to all emergencies. No two emergencies are identical and therefore, it would not be prudent or best practice to respond in the exact same manner for every event. For every emergency event, LUMA uses the ERP as a roadmap while also relying on situational awareness and industry expertise to respond effectively to each emergency event, coordinate with first responders and government agencies, and communicate with the regulator, customers, and stakeholders.

3.0 Hurricane Fiona Timeline

LUMA has developed a visual timeline for Hurricane Fiona key dates in Figure 3-1. The figure depicts the various stages of the event referred to in the ROIs including pre-event, emergency event, preliminary damage assessment, restoration and normal operations and demobilization of emergency operations.

Figure 3-1 Hurricane Fiona Timeline



3.1 Stage Definitions

3.1.1 Pre-event

The period of time between when LUMA first identifies an impending Emergency Event and when the Emergency Event first causes damage to the system resulting in Service Interruptions.

3.1.2 Preliminary Damage Assessment

LUMA begins a preliminary damage assessment of the affected area(s) and/or T&D facilities when it is safe to do so. The preliminary damage assessment is to be completed within a reasonable time (see Table 3 below) at the beginning of the Operation Response phase in accordance with the LUMA Major Outage Metrics in Appendix A of the ERP.

3.1.3 Restoration

Period of time between when an Emergency Event causes damage to the system (causing Service Interruptions), and the time when service is restored to customers.

3.1.4 Post Event / Normal Operations and Demobilization of Emergency Operations

The period immediately following the restoration of service to customers after an Emergency Event.

3.2 Timeline for Preliminary Damage Assessment and ETRs

Regarding the timeline for preliminary damage assessment, issuance of ETRs and the restoration period, Major Outage Restoration – Annex A of the LUMA T&D ERP outlines the anticipated actions related to the preliminary damage assessment and identification of ETRs. Annex A outlines these actions based on the Event Type as defined in Appendix A of the ERP. Hurricane Fiona is classified as a Type 1 event.

Major Outage Restoration – Annex A of the ERP is intended to “establish an operational and tactical comprehensive framework for responding to major outage restoration events” such as Hurricane Fiona. The damage assessment response times included in this section are specific to the requirements for each Event Type 1 and should supersede any generic requirements outlined in the Base Plan.

Section 7.1.8 of Annex A specifically addresses “Major Outage Event Preliminary DA”. Please see Table 3: Reasonable time for preliminary damage assessment below.

Preliminary DA Reasonable Time		
Event Type	**Duration of Event**	**Response Time**
Type 3 or 2 – High Alert or Emergency Conditions	3 to 5 days	36 hours
Type 2 – Emergency Conditions	5 to 10 days	72 hours
Type 1 – Catastrophic	Greater than 10 days	120 hours

Table 3: Reasonable time for preliminary damage assessment

Hurricane Fiona is classified as a Type 1 – Catastrophic Event Type. Thus, the start and completion times of the preliminary damage assessment, with a duration of 120 hours, are consistent with Table 3. Following the completion of the damage assessment and start of the restoration period, the timeline for the issuance of Global and Regional ETRs is outlined in Table 16: Restoration activities for events greater

than 48 hours in Annex A of the ERP. The issuance of Global and Regional ETRs during Hurricane Fiona were also in compliance with the defined timeline.