

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

IN RE: LUMA'S RESPONSE TO HURRICANE
FIONA

CASE NO.: NEPR-MI-2022-0003

SUBJECT: Requirement of Information
("ROI") – Review of LUMA's Response to
Hurricane Fiona

RESOLUTION AND ORDER

On September 18, 2022, Puerto Rico was hit by Hurricane Fiona, a Category 1 storm, causing damage to the electric generation, transmission, and distribution systems, and leading to a blackout of electric service across the Island.¹ This resulted in massive flooding and the outage of the entire power grid, affecting 1.5 million customers. During the response to the incident, LUMA² provided various reports, including Emergency Event Updates, Estimated Time of Restoration ("ETR") Notifications, and Restoration Stage Reports.

As a certified electric service company and the operator of the T&D System, LUMA is subject to compliance with statutory and regulatory requirements and is subject to regulation by the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") in accordance with Act 57-2014³. Pursuant to Section 4.2(g) of the OMA⁴, LUMA is required to prepare "... a plan of action meeting Contract Standards that takes effect from the Service Commencement Date and outlines the procedures and actions necessary for responding to any emergency affecting or reasonably likely to affect the T&D System after the Service Commencement Date (the "Emergency Response Plan)". Section 4.2(g) of the OMA also sets forth certain requirements for notice, content, and updating the Emergency Response Plan.

On December 31, 2020, the Energy Bureau issued a Resolution and Order ("December 31 Order")⁵ through which it noted its responsibility to ensure that the Puerto Rico Electric Power Authority ("PREPA") and/or LUMA are fully prepared to address emergencies and to respond to them so they guarantee that consumers will have safe and reliable electric service as soon as possible in the aftermath of an emergency.⁶

On May 31, 2021, LUMA filed a document titled *Motion Submitting LUMA's Emergency Response Plan* ("May 31 Motion")⁷. The May 31 Motion included an attachment labeled Exhibit 1, titled *LUMA's Emergency Response Plan (0430), LUMA Energy, May 2021, Revision 0* ("LUMA's T&D ERP 2021"). In the May 31 Motion, LUMA asserted that the LUMA T&D ERP 2021 complies with the requirements of applicable law, the December 31 Order, and the

¹ Leysa Caro González, José Orlando Delgado Rivera, Rosalina Marrero-Rodríguez and Sandra Torres Guzmán, *Hurricane Fiona triggered a state of emergency in Puerto Rico*, El Nuevo Día, September 19, 2022, <https://www.elnuevodia.com/english/news/story/hurricane-fiona-triggered-a-state-of-emergency-in-puerto-rico/> (last access October 24, 2022).

² LUMA Energy, LLC ("ManagementCo"), and LUMA Energy ServCo LLC (ServCo"), (jointly referred to as "LUMA").

³ Known as the *Puerto Rico Energy Transformation and RELIEF Act*, as amended.

⁴ *Operation and Management Agreement* between The Puerto Rico Electric Power Authority, The Puerto Rico Public-Private Partnership Authority, and LUMA dated June 2020.

⁵ See, Resolution and Order, *In Re: Puerto Rico Electric Power Authority's Emergency Response Plans*, Case No.: NEPR-MI-2019-0006, December 31, 2020.

⁶ December 31 Motion, p. 2.

⁷ See, *In Re: Puerto Rico Electric Power Authority's Emergency Response Plans*, Case No.: NEPR-MI-2019-0006, *Motion Submitting LUMA's Emergency Response Plan*, submitted by LUMA on May 31, 2021.



OMA. LUMA states, “The ERP attached as Exhibit 1 to this Motion provides for LUMA’s response, immediate recovery, and restoration operations to emergency events efficiently and effectively protect lives, public health, safety, and property; to restore essential services; and to enable and assist economic recovery.”⁸

On May 27, 2022, LUMA filed a document titled *Motion Submitting LUMA’s Annual Report Under Section 6(M) of Act 83 of May 12, 1941, as Amended* (“May 27 Motion”)⁹. The May 27 Motion included attachments labeled Exhibit 1, titled *Summary of Emergency Preparedness forming part of LUMA’s 2022 Annual T&D Emergency Preparedness Report* and Exhibit 2, titled *T&D ERP forming part of LUMA’s 2022 Annual T&D Emergency Preparedness Report* (“LUMA’s T&D ERP 2022”). In the May 27 Motion, LUMA relates that the Annual T&D Emergency Preparedness Report also includes improvements made to LUMA’s T&D ERP 2021.

In the May 27 Motion, LUMA states, “The ERP describes the procedures and actions and establishes the structure, processes, and protocols for managing and responding to major electric outages, emergencies, and other incidents that may disrupt the T&D System’s operations and services, including those resulting from hurricanes, storms, other atmospheric disturbances, floods, earthquakes, and fires to T&D System facilities.”¹⁰ LUMA states that its Mission is to “...meet the needs of customers through risk assessments and continuous communications regarding planning for, responding to, and recovering from major outages...”¹¹

In accordance with its responsibility to ensure that PREPA and/or LUMA are fully prepared to address emergencies and to respond to them so they guarantee that consumers will have safe and reliable electric service as soon as possible in the aftermath of an emergency, the Energy Bureau will review the reasonableness of LUMA’s implementation of LUMA’s T&D ERP 2022 and its performance during the emergency caused by Hurricane *Fiona*. The Requirements of Information (“ROI”) set forth herein are intended to supplement, rather than to replace, information that LUMA will be providing in forthcoming outage reports in accordance with the Emergency Response Plan and regulatory requirements. Post-event actions set forth in the LUMA T&D ERP 2022 are not addressed at this time.

The Energy Bureau has determined it requires additional information about LUMA’s response to Hurricane *Fiona*, in accordance with LUMA’s T&D ERP 2022. The Energy Bureau **ORDERS** LUMA, on or before November 18, 2022 to provide the ROI identified in Attachment A of this Resolution and Order. The Energy Bureau may supplement or expand this ROI as appropriate.

The Energy Bureau **WARNS** LUMA that, noncompliance with any provision of this Resolution and Order, may result in the imposition of fines pursuant to Act 57-2014 and applicable Energy Bureau’s regulations and/or any other appropriate administrative sanctions, as deemed appropriate by the Energy Bureau.

Be it notified and published.

⁸ *Id.*, p. 10, Section V.

⁹ See, *In Re: Puerto Rico Electric Power Authority’s Emergency Response Plans*, Case No.: NEPR-MI-2019-0006, *Motion Submitting LUMA’s Annual Report Under Section 6(M) of Act 83 of May 12, 1941, as Amended*, submitted by LUMA on May 27, 2022.

¹⁰ *Id.*, Exhibit I, p. 1.

¹¹ *Id.*, Exhibit II, p. 11.




Edison Avilés Deliz
Chairman


Lillian Mateo Santos
Associate Commissioner


Ferdinand A. Ramos Soegaard
Associate Commissioner


Sylvia B. Ugarte Araujo
Associate Commissioner

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on October 25, 2022. I also certify that on October 25, 2022 a copy of this Resolution and Order was notified by electronic mail to margarita.mercado@us.dlapiper.com. I also certify that today, October 25, 2022, I have proceeded with the filing of the Resolution and Order issued by the Puerto Rico Energy Bureau.

For the record, I sign this in San Juan, Puerto Rico, today October 25, 2022.


Sonia Seda Gaztambide
Clerk



Attachment A

A. Pre-Event Stage

1. During the Pre-Event Stage, did LUMA notify Lifeline Residential Service (LRS) customers in accordance with its 2022 Base Plan at page 41?
 - a. If so, how many LRS customers were contacted?
 - b. By what means were they contacted?
 - c. What information was provided and/or requested in the contacts?
 - d. If not, fully explain why not.
 - e. How many LRS customers are on record?
 - f. Has LUMA become aware of LRS customers who were not notified because they were not on record? If so, how many?
2. Were LRS customers contacted during the event (as compared with pre-event notification)?
 - a. If so, how many LRS customers were contacted?
 - b. By what means were they contacted?
 - c. What information was contained and/or requested in the contacts?
 - d. If not, fully explain why not.
3. Were Pre-Event Stage Reports submitted at least once daily to the Regulatory Authorities?
 - a. If so, what information was contained in the Pre-Event Stage Reports.
 - b. If not, fully explain why not.

B. Restoration Stage Reports

Restoration Annex A contains actions that are dependent upon the time the Restoration Period starts.

1. Within the first six hours of the restoration period:
 - a. Explain why LUMA did not provide the Energy Bureau with notification of the start time of the Restoration Period.
 - b. Indicate at what time and what date the Restoration Period started.
2. Within the first 24 hours of the restoration period:
 - a. Did LUMA notify Regulatory Authorities of what areas sustained the most damage to the electric system and provide ETRs, where known, on a general geographic basis?
 - b. If so, when and by what means did that notification occur?
 - c. If not, why not?
 - d. Was a press release for upcoming news cycles with that information issued?
3. Were Regulatory Authorities notified of the start and completion of damage assessment?
 - a. If so, when and by what means did that notification occur?
 - b. If not, why not?



4. Were Regulatory Authorities provided with an update on the estimated time of restoration (ETR) at the completion of damage assessment or after the first 24 hours following the start of damage assessment, whichever occurs first?
 - a. If so, when and by what means did that notification occur?
 - b. If not, why not?
5. Were Restoration Stage Reports, including ETRs, provided to the Regulatory Authorities at a minimum of once per day until restoration was complete?
 - a. If not, why not?
6. Were restoration updates provided daily to Regulatory Authorities until otherwise directed by staff?
 - a. If not, why not?

C. Reports to Municipal Emergency Management

1. Within the first 12 hours of the restoration period:
 - a. Did LUMA prepare a press release and communicate with affected municipal and governmental officials?
 - i. If so, identify the municipalities with which communication occurred and the dates, times, and methods of communication.
 - ii. If not, fully explain why not.
2. Within the first 18 hours of the restoration period:
 - a. Did LUMA schedule municipal conference calls or alternative communication methods?
 - i. If so, identify the municipalities that were contacted and the dates, times, and methods of communication.
 - ii. If not, fully explain why not.
3. Within the first 36 hours of the restoration period:
 - a. Did the first scheduled municipal conference calls occur?
 - i. If so, identify the municipalities with which the conference calls occurred and the dates and times of the conference calls.
 - ii. If not, explain fully why not.
 - b. Did LUMA provide reports to municipal emergency managers or their designees that contain detailed information related to emergency conditions and restoration performance for each affected city and town?
 - i. If so, when and by what means did that communication occur with each affected municipality?
 - ii. What information did the reports contain?
 - iii. If not, why not?

D. Estimated Time of Restoration (ETRs)

1. The LUMA T&D ERP 2022 provides at Base Plan, page 42, that "LUMA provides updates on the estimated time of restoration (ETR) at the completion of the damage assessment or after the first 24 hours following the start of damage assessment, whichever occurs first."



- a. What was the date and time of the start of damage assessment?
 - b. What was the date and time of the completion of damage assessment?
2. Within the first 24 hours of the restoration period, did LUMA provide Regulatory Authorities with ETRs and issue press release with that information issued during that time frame?
 - a. If so, when were the ETRs provided?
 - b. If so, when were press releases issued?
 - c. If not, fully explain why not.
3. When was the Global ETR first developed?
4. When and by what means was the Global ETR first communicated to Regulatory Authorities?
5. Did Restoration Stage Reports contain Regional ETRs by municipality in conformance with the Restoration Stage Sample Report at page 147 of the ERP Annex A?
 - a. If so, provide details.
 - b. If not, fully explain why not.
6. When were Regional, Municipal, and Individual ETRs developed?
7. Within the first 36 hours of the restoration period:
 - a. Were regional/municipal ETRs established for areas expected to be restored in five days or less?
 - i. If not, fully explain why not.
 - b. Was ETR information made available to the public?
 - i. If so, by what means was it made available?
 - ii. If not, fully explain why not.
 - c. Did LUMA identify any heavily damaged areas where large numbers of customers were expected to remain without service for more than five days?
 - i. If not, fully explain why not.
8. Within the first 48 hours of the restoration period:
 - a. Were regional/municipal ETRs established for areas expected to be restored in five days even if the total restoration period is expected to be over five days?
 - i. If not, fully explain why not.
 - b. Was ETR information made available to the public?
 - i. If so, by what means?
 - ii. What ETRs were provided?
 - iii. If not, fully explain why not.
9. Beyond the first 48 hours of the restoration period:
 - a. Were ETRs provided for each affected municipality?
 - i. If so, how and when was that information made available?
 - ii. If not, fully explain why not.
 - iii. If not provided to each affected municipality, for which municipalities were they provided?
10. Were Regional, Local, and Individual ETRs developed in accordance with the timeframes set forth at page 31 of the ERP Annex A?



a. If not, fully explain why not.

11. When, by what means, and to whom were Regional, Municipal, and Individual ETRs communicated?

12. When were ETRs for each affected locality developed and by what means were they made available?

E. Outage Management System (OMS)

1. Did the OMS effectively operate during the event? Explain fully.
2. Were there any failures of the OMS during the event? Explain fully.
3. What capabilities did the OMS provide? Explain fully.
4. To what extent did the OMS alleviate manually intensive processes? Explain fully.

F. Call Center

1. How many customer calls were answered? Fully explain.
2. What was the call abandonment rate?
3. What was the average speed of answer?
4. What is the breakdown of operator answered calls compared with IVR answered calls?
5. Do customers have the option to speak with a live representative if they wish? Explain fully.
6. What was the number of call centers utilized? Explain fully.
7. Were high volume vendors utilized? If so, to what extent?
8. Has a dedicated telephone number been established for emergency personnel to contact the call center?
9. Were any customer-oriented functions unavailable during the emergency event? Explain fully.

G. Staffing/Mutual Aid

1. Identify type of work performed and quantify corresponding LUMA resources that were employed during the event for damage assessment and restoration.
2. Identify type of work performed and quantify corresponding on-island and off-island contracted resources employed during the event for damage assessment and restoration.
3. Explain and quantify the numbers and origin of mutual aid crews utilized throughout the event?
4. What was the timing of requests and arrival of mutual aid crews?



H. Coordination

1. Describe coordination that occurred between LUMA and PREPA during the event.
2. Describe coordination between LUMA and PREPA with respect to the EOC of each entity.
3. Describe decision making coordination between LUMA and PREPA during the event.

I. T&D Unauthorized Work

1. Has LUMA determined the extent of T&D unauthorized work that took place during the event?
2. Has the T&D unauthorized work been inspected and corrected where necessary?
 - a. If not, fully explain why not.
3. What steps have been taken to prevent re-occurrence of T&D unauthorized work.

