

STATEMENT OF  
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BEFORE THE  
SUBCOMMITTEE ON INDIAN AND INSULAR AFFAIRS  
COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

“Examining Puerto Rico’s Electrical Grid and the Need for Reliable and Resilient Energy”  
Thursday, September 26, 2024 at 10:00 a.m.

**I. INTRODUCTION**

Chair Hageman, Ranking Member Grijalva, Congresswoman González-Colón, and distinguished Members of the Committee, thank you for the opportunity to appear before you today to discuss the critical issues surrounding Puerto Rico's electric system.

My name is Antonio Torres Miranda, and I serve as the Associate Commissioner of the Energy Bureau of the Puerto Rico Public Service Regulatory Board (“Energy Bureau”).<sup>1</sup> The Energy Bureau is an independent, regulatory body consisting of five (5) commissioners that regulate the electric utility serving the island and functions similarly to the Public Utilities Commissions (“PUC”) found across the mainland. The Commissioners have equal voting powers. The Energy Bureau has a mandate to implement and enforce the energy public policy enacted in Puerto Rico, as well as to adopt the regulations necessary for such implementation.

Having an effective regulator is crucial to the development of a stable and robust electric delivery system and the transformation of the Puerto Rico electric system. The Energy Bureau, by law is an independent regulator that is subject to judicial review. This stability fosters an environment where long-term plans and strategies can succeed. In the intervening period since our last appearance before this esteemed Committee,<sup>2</sup> the landscape of Puerto Rico's energy sector has undergone significant changes. The Energy Bureau has diligently exercised its regulatory authority to scrutinize and evaluate the comprehensive plans put forth by both LUMA<sup>3</sup>, the private Transmission and Distribution System operator, and Genera, the newly instated Legacy Generation Assets operator, to ensure that these plans are conducive to improving the delivery of electric service and increasing the resilience of the electric infrastructure against future weather events by making smart use of the federal reconstruction dollars available to the island,

  
<sup>1</sup> Formerly known as the Puerto Rico Energy Commission.

<sup>2</sup> Committee on Natural Resources/Office of Insular Affairs, October 6, 2021, Oversight hearing on “*Puerto Rico Electric Power Authority (PREPA) Post-Implementation of the LUMA Transmission and Distribution Contract*.”

<sup>3</sup> LUMA Energy, LLC and LUMA Energy ServCo, LLC (jointly “LUMA”).

and ensuring that the shift towards 100% renewable generation is aligned with the targets imposed by our energy public policy.

The Energy Bureau's expanded purview now encompasses the oversight of both the T&D system, as well as legacy generation asset planning and operations as well as the future generation market. This comprehensive regulatory approach allows for a holistic evaluation of the entire electricity value chain, ensuring that improvements and investments are coordinated and mutually reinforcing across all segments of the power system. Both the T&D and the LGAs in Puerto Rico are now operated and maintained by LUMA and Genera, respectively, with oversight from the Puerto Rico Energy Bureau.<sup>4</sup>

The electric system in Puerto Rico, despite ongoing efforts and investments, continues to face formidable challenges. The recent outage events of June 2024, which affected over 300,000 customers, serve as a stark reminder of the fragility of our infrastructure and the urgent need for comprehensive improvements. These incidents highlight the complex interplay of aging assets, deferred maintenance, and the increasing impacts of climate change on our island's power grid.

However, it is crucial to contextualize these challenges within the broader narrative of Puerto Rico's energy transformation. Puerto Rico stands at a pivotal juncture, where the transition to private operators for both transmission and distribution, as well as legacy generation assets, offers new opportunities for innovation and efficiency. Concurrently, we are witnessing an unprecedented infusion of federal funding aimed at rebuilding and modernizing our electric system within the parameters of current industry safety and reliability codes and standards.

The path forward is not without its obstacles. Federal fund utilization, the ongoing bankruptcy proceedings of the Puerto Rico Electric Power Authority, and the intricate process of transitioning from a monopoly to a generation market, all contribute to the multifaceted nature of our challenges. Yet, these very challenges also present opportunities for transformative change.

As we delve into the specifics of recent events and our strategic response, The Energy Bureau ask the Committee to consider the broader context of Puerto Rico's energy landscape – a landscape marked by both significant hurdles and promising horizons. Today's discussion is not merely about addressing immediate crises, but about charting a course towards a resilient, sustainable, and equitable energy future for all our citizens as required by local law.

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<sup>4</sup> LUMA Energy, LLC and LUMA Energy ServCo, LLC are certified electric service companies that operate under the jurisdiction of the PREB, Certification Number: NEPR-CT-2020-0008 and Certification Number: NEPR-CT-2020-0007, respectively. Genera PR, LLC is a certified electric service company that operates under the jurisdiction of the PREB, Certification Number: NEPR-CT-2023-0001.

## II. THE ENERGY BUREAU – OVERVIEW

The Energy Bureau was created in 2014 by the *Puerto Rico Energy Transformation and RELIEF Act*<sup>5</sup> serving as a key component for the full and transparent implementation of the Act’s energy reform goals. Specifically, the Energy Bureau has the responsibility to regulate, monitor and enforce the energy public policy of the Government of Puerto Rico. The Energy Bureau has a mandate to ensure electric service is safe, reliable, and affordable.

### A. Expertise

#### 1. Commissioners

By statute,<sup>6</sup> The Energy Bureau Commissioners have diverse professional backgrounds. Currently, three commissioners hold dual degrees in engineering and law, one commissioner is a seasoned energy, land use, and environmental attorney who serves in the National Association of Regulatory Utility Commissioners (“NARUC”) Board of Directors, and one commissioner is a licensed engineer specialized in the design of electrical power systems.

#### 2. The Energy Bureau is supported by Nationally Recognized Technical Resources

The Energy relies on recognized experts in the utility regulatory field to assist its informed and grounded regulatory development. These resources include former commissioners and staff from multiple U.S. Public Utility Commissions (“PUCs”), some with first-hand experience dealing with the current arrangement found in Puerto Rico: a private operator running the T&D system for the public electric utility. The Energy Bureau is also advised by experts in the areas of energy regulatory affairs, economics, engineering, energy efficiency and resource/system/operations planning, among others. These experts also provide consulting services throughout the USA and other international jurisdictions.

## III. RECENT OUTAGE EVENTS OF JUNE 2024

In regard to the deeply concerning outage events that occurred in mid-June of this year. On June 12, 2024, Puerto Rico experienced two significant power outages that affected hundreds of thousands of our citizens.

The first incident occurred at approximately 3:00 p.m., which impacted Units of the San Juan Power Plant, as well as the temporary emergency units at that site. This event left more than 100,000 customers without power.

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<sup>5</sup> Act 57-2014, as amended.


<sup>6</sup> Section 6.6 of Act 57-2014, as amended.

At about 9:00 p.m. on the same day, a second event plunged approximately 350,000 customers into darkness, primarily affecting the regions of Bayamón, San Juan, and Carolina.

Also, on June 2, 2024, a major outage occurred at the Santa Isabel transmission substation. As a result of the outage, customers in the municipalities of Santa Isabel, Coamo and Aibonito suffered service interruptions, some of which persisted for more than a week.

These outages represented a significant disruption to daily life, compromised public safety, and are clear examples of the persistent fragility of our electric system. Hospitals were forced to rely on backup generators, businesses had to close, and families were left in the dark during periods of peak demand.

#### A. The Energy Bureau's immediate response and investigations

 Upon learning of these outages, the Energy Bureau, on June 14, 2024, issued Resolutions and Orders initiating formal investigations into the causes of these incidents and the investigative and corrective actions taken by LUMA in response.<sup>7</sup>

The Energy Bureau demanded immediate Incident Reports from both LUMA and Genera , requiring detailed explanations of the events, their causes, and the steps taken to prevent such occurrences in the future. The Energy Bureau's investigations are ongoing, and committed to a thorough and transparent process to uncover the root causes of these failures.

Furthermore, the Energy Bureau have engaged the services of the Electric Power Research Institute (EPRI) to serve as the independent technical lead for the Energy Bureau in these investigations. EPRI's involvement ensures that the analysis will be based on the most current industry knowledge and best practices. The Energy Bureau will, in the near future, review and act upon the findings and recommendations made by EPRI.

## IV. PERSISTENT ROLLING BLACKOUTS

Besides large scale outages such as the events that occurred this past June, Puerto Rico experiences an unacceptably large number of frequently occurring rolling blackouts.

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<sup>7</sup> See, Resolutions and Orders, In re: *Initiation of Investigation; Initial Reporting and Incident Report*, Case No. NEPR-IN-2024-0003, June 14, 2024 and In re: *Initiation of Investigation; Initial Reporting and Incident Report*, Case No. NEPR-IN-2024-0002, June 14, 2024.

In response, the Energy Bureau initiated a docket, through which, it ordered LUMA and Genera to develop priority stabilization plans which were to be aggressive preliminary plans of improvement to the electric system with a maximum implementation period of two years.

The Energy Bureau established a robust review process for the plans, including a technical conference and a public hearing. Through this proceeding, the Energy Bureau will mitigate the rolling blackouts for the people of Puerto Rico to receive the level of electric service that adheres to industry reliability standards.

Also, the Energy Bureau worked closely with the utilities to secure from FEMA and fund the 14 TM2500 temporary generators which total 350MW, which could be used to supplement generation, when necessary, but also enable Genera to perform necessary maintenance on the legacy generators which provide most of the electricity for Puerto Rico. Without the availability of these temporary generators, the system operator would have had to resort to more frequent load sheds in times of high electric demand, resulting in increased rolling blackouts.

#### A. PREB's directives

 More specifically, on June 13, 2024, the Energy Bureau ordered PREPA, LUMA and Genera, to each develop within 20 days, an “aggressive preliminary plan of improvements to the electric system” with a maximum implementation period of two years. Each of the parties filed their plans and the Energy Bureau established a schedule for their comprehensive review. As of this date, the virtual technical workshop has concluded. The general public will have the opportunity to present its comments and suggestions regarding the Preliminary Plans during the Virtual Public Hearing scheduled for October 2, 2024 and may also submit written comments and suggestions.

Along with implementing these plans the TM2500 temporary generators that were obtained through FEMA are fundamental in alleviating the need for load shed in times of increased electric demand or unexpected outages and have enabled Genera to facilitate planned outage scheduling for maintenance at the legacy generation plants. In the recent budget review, the Energy Bureau approved funding to operate the fourteen temporary generators requested by Genera. These temporary generators are essential to facilitate the repairs of the legacy generation. The Energy Bureau is grateful for the financial assistance that has already been afforded to Puerto Rico, without which, due to the extent of the damage inflicted by past hurricanes and earthquakes, Puerto Rico would not be on the path to recovery.

## V. VEGETATION MANAGEMENT INITIATIVES

The Energy Bureau emphasizes that vegetation management is a critical factor that is a persistent threat to our system's reliability.

It is well known that overgrown vegetation continues to be a leading cause of outages across Puerto Rico. Despite repeated directives from the Energy Bureau and significant federal funding allocated for this purpose, the pace of vegetation management has to be accelerated.

In fact, data shows that vegetation-related issues contribute to more than half of the outages experienced in Puerto Rico.<sup>8</sup> This is not a new problem, but rather a longstanding issue that has been exacerbated by years of deferred maintenance and the challenges of Puerto Rico's tropical climate.

The events of June 2024 have only heightened the urgent need for a comprehensive, island-wide vegetation management program. It is clear that without addressing this fundamental issue, Puerto Rico cannot hope to achieve the reliable and resilient electric system that it deserves.

The Energy Bureau is fully committed to continue its regulatory power to increase the pace of vegetation management. The Energy Bureau will continue to push for accelerated implementation of these critical efforts.

The recent outages serve as a stark reminder of the work that still lies ahead. But they also strengthen the Energy Bureau's resolve to transform Puerto Rico's electric system into one that is reliable, resilient, and worthy of the trust of our citizens.

The Energy Bureau has long identified vegetation-related outages as a leading cause of power interruptions in Puerto Rico. The Energy Bureau have directed LUMA to prioritize comprehensive vegetation management as a cornerstone of efforts to improve system reliability and resilience.

This program, unprecedented in its scale and impact, aims to clear and maintain over 16,000 miles of transmission and distribution lines across our island.

Based on information submitted by LUMA to the Energy Bureau, as of June 2024:


- Cleared vegetation from over 4,800 miles of powerlines and electric infrastructure
- All 230kV transmission lines have been cleared of hazardous vegetation
- All 300 of Puerto Rico's electric substations are now free from vegetation-related risks

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<sup>8</sup> LUMA Energy, LLC, "Motion Submitting LUMA's Updated Vegetation Management Plan," In Re: Review of the Puerto Rico Electric Power Authority's Comprehensive Vegetation Management Plan, Case No. NEPR-MI-2019-0005, June 14, 2024, Exhibit 1: Vegetation Management Plan, p. 31, Section 4.3.1 Reliable Electric Service, <https://energia.pr.gov/wp-content/uploads/sites/7/2024/06/20240614-MI20190005-Motion-Submitting-LUMAs-Updated-Vegetation-Management-Plan.pdf> (accessed June 17, 2024).

The Energy Bureau has established oversight mechanisms for this program. The Energy Bureau requires quarterly progress reports, review on-site inspection data, and have established performance metrics to ensure accountability. Where necessary, the Energy Bureau have issued directives to accelerate progress. For example, to address major cause of outages on transmission lines that carry most of the baseload generation, the Energy Bureau directed the acceleration of the vegetation clearing for all 230kV transmission lines.

The Energy Bureau emphasizes that the pace of implementation remains a concern. The magnitude of the challenge is substantial, and it will take time to fully address vegetation issues across the entire system.

 The Energy Bureau's regulatory goal is to establish a proactive, environmentally sensitive vegetation management system that will serve Puerto Rico for generations to come.

The Energy Bureau is committed to the oversight of effective vegetation management as a critical step towards a more reliable, resilient, and sustainable electric grid for Puerto Rico.

## **VI. PROGRESS AND CHALLENGES IN ELECTRIC SYSTEM IMPROVEMENT**

LUMA has reported clearing vegetation from over 4,500 miles of power lines and 100% of Puerto Rico's approximately 300 electric substation sites. LUMA have also installed over 8,400 automated and protection devices to help detect and reduce service interruptions. Additionally, more than 11,500 poles have been repaired or replaced with infrastructure designed to withstand wind gusts of up to 160 mile-per-hour.

Despite these improvements, the current state of our electric system is far from the remediated condition Puerto Rico aspire to achieve. The Energy Bureau has consistently pushed for accelerated improvements including addressing the following:

- The sheer scale of the necessary improvements after years of neglect and the impact of natural disasters.
- Challenges in efficiently utilizing available federal funding.
- The ongoing bankruptcy proceedings of the Puerto Rico Electric Power Authority (PREPA), which complicate long-term planning and investments.

The Energy Bureau's role in this context has been to continually push for accelerated improvements while maintaining rigorous oversight. The Energy Bureau have issued numerous orders and resolutions to address critical issues, such as vegetation management, reliability improvements, and federal funding utilization.

For instance, in Resolution and Orders of June 14, 2024, the Energy Bureau directed LUMA, Genera and PREPA to develop a priority plan for system improvements in response to the June outage events.

The Energy Bureau is committed to its vision of a reliable, resilient, and sustainable electric system for Puerto Rico. The Energy Bureau continues to work diligently to balance the need for immediate reliability improvements with the long-term goals of system transformation and renewable energy integration.

The Energy Bureau acknowledges the progress made by all the parties and recognizes the substantial work that lies ahead. The Energy Bureau will continue to leverage its regulatory authority to drive the necessary improvements and ensure that the people of Puerto Rico receive the reliable and affordable electric service they deserve.

## **VII. FEDERAL FUNDING AND RESOURCE UTILIZATION**

The Energy Bureau has taken an active role that the federal funds are designated for projects that comply with the approved Integrated Resource Plan. The Energy Bureau's oversight includes:

- Review and approval processes for proposed projects: The Energy Bureau have established a comprehensive framework to evaluate projects based on their alignment with Puerto Rico's energy policies (specially the IRP), cost-effectiveness, and potential to improve system reliability and resilience.
- Regular monitoring and reporting requirements: The Energy Bureau requires detailed, periodic reports on the progress of federally funded projects. This reporting has been shared with local Legislation.
- Emphasis on transparency: The Energy Bureau decisions and orders related to federal funding are made publicly available, fostering accountability and public trust.

During a June 21, 2024 Technical Conference, part of the evaluation proceeding of the electric utility budget for fiscal year 2025, LUMA reported that \$18.1 million had been obligated by FEMA for one vegetation management project in the San Juan region, out of the 31 projects submitted for the island-wide vegetation clearance reset estimated at \$1.2 billion.

The Energy Bureau understands that the efficient and effective use of these federal resources is absolutely critical to achieving the transformation of Puerto Rico's electric system. The Energy Bureau is committed that these funds are deployed rapidly, responsibly, and in the best interest of the people of Puerto Rico.

The Energy Bureau emphasizes that while the challenges are significant, the opportunity in benefit to Puerto Rico is immense. With continued support from Congress and federal



agencies, Puerto Rico will build the modern, resilient, and sustainable electric system that Puerto Rico needs and deserves.

## **VIII. PREPA'S BANKRUPTCY AND ITS IMPACT**

The PREPA has been operating under Title III of PROMESA since July 2017, making it one of the largest public power utility bankruptcies in U.S. history. This prolonged bankruptcy process has had significant implications for Puerto Rico's electric system and its ability to modernize and improve reliability.

As of today, PREPA remains in bankruptcy, with ongoing negotiations between the Financial Oversight and Management Board, bondholders, and other stakeholders.

The resolution of PREPA's bankruptcy is critical to the future of Puerto Rico's electric system. A successful exit from bankruptcy would provide PREPA with a more stable financial footing, potentially improving its ability to invest in much-needed infrastructure improvements and maintenance. It could also restore PREPA's access to traditional capital markets, enabling it to finance long-term projects more efficiently.

The conclusion of the bankruptcy process would allow PREPA, LUMA, and Genera to focus more fully on operational improvements rather than complex financial restructuring. However, the terms of any bankruptcy resolution will likely have implications for future electricity rates, which in turn affects the affordability of power for Puerto Rico's residents and businesses.

A clearer financial picture post-bankruptcy would provide greater certainty about PREPA's long-term financial structure. The Energy Bureau remains committed to ensuring that any resolution to PREPA's bankruptcy aligns with a reliable, resilient, and affordable electric system for Puerto Rico.

A sustainable resolution to PREPA's bankruptcy can be reached soon, as it would remove a significant obstacle to the comprehensive transformation of Puerto Rico's electric system that we all seek to achieve.

## **IX. CONCLUSION**

Chair Hageman, Ranking Member Grijalva, esteemed members of the Committee, the Energy Bureau appreciates your attention to this critical matter affecting the lives of over 3 million American citizens in Puerto Rico. The Energy Bureau stands ready to answer any questions you may have regarding our oversight role and the current state of Puerto Rico's electric system.

The Energy Bureau welcomes the opportunity to provide further clarity on any aspect of this testimony.

The Energy Bureau is eager to hear your perspectives and concerns. Your insights are invaluable as we navigate this critical period in Puerto Rico's energy transformation.

Once again, the Energy Bureau thanks the Committee for this opportunity to testify and for your ongoing commitment to addressing Puerto Rico's energy challenges. On behalf of the Energy Bureau I now stand ready to answer your questions.



Antonio Torres Miranda  
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Energy Bureau of Puerto Rico