

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

IN RE: REVIEW OF T&D OPERATOR'S
SYSTEM OPERATION PRINCIPLES

CASE NO.: NEPR-MI-2021-0001

SUBJECT: Continued Reliance on Manual
Load Shedding; Compliance with the Load
Shed Block Rotation Requirements of the
System Operations Procedures.

RESOLUTION AND ORDER

I. Background

On February 25, 2021, LUMA Energy, LLC and LUMA Energy ServCo, LLC (collectively, "LUMA") filed before the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") a document titled *LUMA's Submittal and Request for Approval of System Operation Principles*, through which LUMA requested approval of the System Operation Principles ("SOP") that govern its operation of the Puerto Rico transmission and distribution system. On May 31, 2021, the Energy Bureau conditionally approved the SOP.¹ In implementation of the SOP, on December 23, 2021, LUMA filed its System Operations procedures, including Procedure No. 17, *Load Shedding*, Revision 1.2, issued on December 15, 2021 ("Load Shedding Procedure").² The Load Shedding Procedure defines the conditions under which selective load shedding is initiated and distinguishes between Automatic Load Shedding, which is triggered by the SCADA system upon a sudden loss of generation, and Manual Load Shedding ("MLS"), a planned event that typically occurs when there is a generation deficiency in the system and which is managed proactively by system operations personnel, including the rotation of load shed blocks to limit the time any block of customers remains without power.

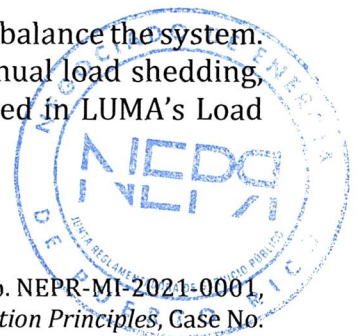
The Energy Bureau has likewise directed the utility to address the root cause of the system's recurring reliance on MLS—an insufficient supply of dependable generation capacity. In Case No. NEPR-MI-2024-0005, through its Resolution and Order of March 28, 2025 ("March 28 Resolution"), the Energy Bureau established the Electric System Priority Stabilization Plan ("PSP"), set forth as Attachment A thereto.³ Among the immediate activities of the PSP the Energy Bureau directed the deployment and extension of emergency temporary generation: Task 1 provides for the extension of the operation of the TM2500 temporary generation units sited between the San Juan and Palo Seco power plants through December 31, 2027; and Task 7 provides for the deployment of 800 MW of additional emergency temporary base generation for interconnection between the Aguirre and Costa Sur power plants, as generation barges and/or land power mobile temporary units. As reflected in the PSP, injecting this dependable supply is the most effective and immediate way to reduce reliance on load shedding events.

While these deployments are finalized, LUMA continues to rely on MLS to balance the system. Most recently, on the evening of July 22, 2026, LUMA implemented manual load shedding, interrupting service to blocks of customers across the island, as depicted in LUMA's Load Shed Map depicted below.

¹ See *LUMA's Submittal and Request for Approval of System Operation Principles*, Case No. NEPR-MI-2021-0001, February 25, 2021; Resolution and Order, *In Re: Review of T&D Operator's System Operation Principles*, Case No. NEPR-MI-2021-0001, May 31, 2021 ("May 31 Resolution").

² See *Motion Submitting System Operations Procedures and Request for Confidential Treatment*, Case No. NEPR-MI-2021-0001, December 23, 2021, Procedure No. 17, *Load Shedding*, Revision 1.2, December 15, 2021.

³ See Resolution and Order, *In Re: Electric System Priority Stabilization Plan*, Case No. NEPR-MI-2024-0005, March 28, 2025, Attachment A, Tasks 1 and 7.



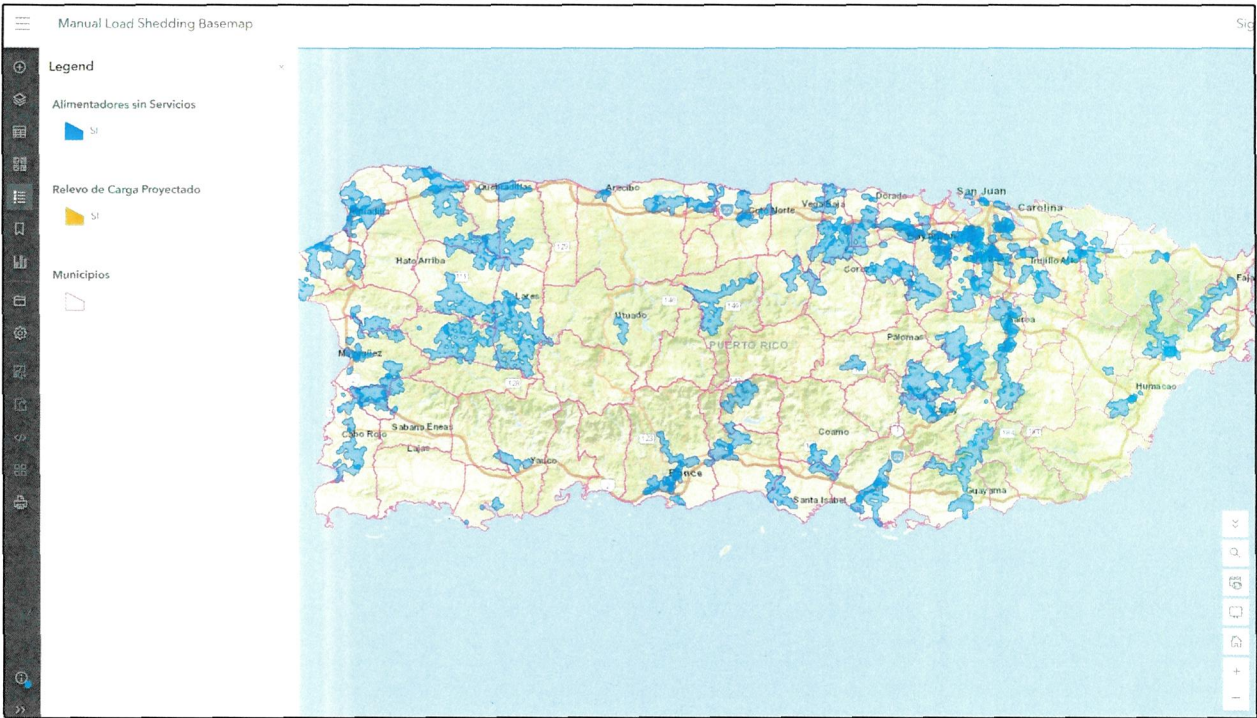


Figure 1 – LUMA Load Shed Map – Evening of July 22, 2026⁴

II. Discussion

The Load Shedding Procedure establishes specific requirements to limit the duration of customer interruptions during an MLS event. Section 3.1.7 of the Load Shedding Procedure provides that the Supervisor Transmission and Generation, in coordination with the Transmission Operators, “shall rotate the Load Shed blocks based on MW every hour to reduce the time any block is without power.”⁵ Consistent with the foregoing, Appendix C of the Load Shedding Procedure, titled *Manual Load Shedding*, instructs system operators that the load shed blocks are to begin rotating after one (1) hour out of service, that is, once the first block has been out of service for one hour, a new block must be shed to allow the first block to be normalized, and characterizes Section 3.1.7 as requiring rotation after one (1) to two (2) hours.⁶ Under any reading of the Load Shedding Procedure, no load shed block should remain interrupted in excess of two (2) hours during a MLS event.

The Energy Bureau notes two elements of the Load Shedding Procedure that bear directly on verifying compliance. *First*, Appendix C requires operators to record in the control room logbook (“bitácora”) the time at which the manual load shed began and the block that was shed, and, upon conclusion, the time at which the load shed ended. LUMA’s own operating logs should therefore permit a block-by-block verification of the duration of each interruption and of the rotation actually performed during each MLS event.

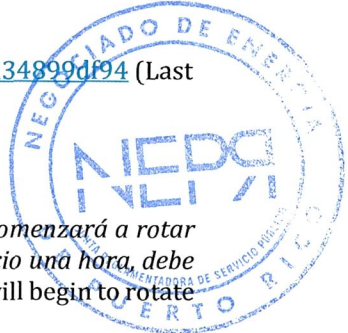
Second, Appendix C states that during programmed load shedding, operators will be working in manual mode because the SCADA load rotation mode “is not available at the moment.”⁷ The unavailability of the automatic rotation functionality means that the timely rotation of load shed blocks depends entirely on manual action by system operators—precisely the condition under which blocks may be left out of service longer than the Load Shedding Procedure allows. The Energy Bureau requires visibility as to whether this functionality has

⁴ Available at: <https://aeepr.maps.arcgis.com/apps/dashboards/1995c773fceb468db8b7f7d34899df94> (Last verified July 23, 2026).

⁵ Load Shedding Procedure, § 3.1.7.

⁶ Load Shedding Procedure, Appendix C – Manual Load Shedding (“Los bloques de carga se comenzará a rotar luego de 1 hora fuera de servicio, es decir cuando el primer bloque de carga esté fuera de servicio una hora, debe de relevar un bloque nuevo para dar espacio y normalizar el primer bloque.”; “The load blocks will begin to rotate after 1 hour out of services. Section 3.1.7 states rotate after 1 to 2 hours”).

⁷ Load Shedding Procedure, Appendix C – Manual Load Shedding (“During the programmed load shedding we will be working with the manual mode (this because the load rotation mode is not available at the moment).”).



been restored and, if not, what compensating measures LUMA employs to ensure timely rotation.

In light of the foregoing, the Energy Bureau deems it necessary for LUMA to explain how it is complying with the Load Shedding Procedure, and in particular with the block rotation requirements of Section 3.1.7 and Appendix C thereof.

III. Conclusion

The Energy Bureau **ORDERS** LUMA to file, **within twenty (20) days from the notification of this Resolution and Order**, a detailed explanation of how it is complying with the Manual Load Shedding provisions of the Load Shedding Procedure. LUMA's filing shall include, at a minimum: (i) a description of how load shed blocks are rotated during MLS events in accordance with Section 3.1.7 and Appendix C of the Load Shedding Procedure; (ii) copies of the control room logbook ("bitácora") entries corresponding to the MLS event of July 22, 2026, together with a table identifying, for each load shed block, the time it was shed, the time it was restored, and the total duration of the interruption; (iii) an identification of any block that remained interrupted in excess of two (2) hours during said event, with an explanation of the cause; and (iv) the current status of the SCADA automatic load rotation functionality referenced in Appendix C, the interim measures used to ensure timely rotation while that functionality remains unavailable, and the estimated date for its restoration.

The Energy Bureau **WARNS** that, in accordance with Article 6.36 of Act 57-2014, noncompliance with this Resolution and Order, regulations, and/or applicable laws may carry the imposition of fines and administrative sanctions.⁸

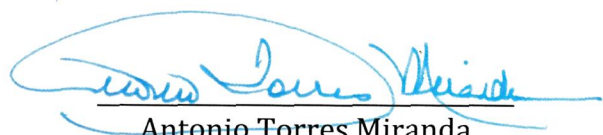
Be it notified and published.



Edison Avilés Deliz
Chairman



Lillian Mateo Santos
Associate Commissioner



Antonio Torres Miranda
Associate Commissioner

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on July 28, 2026. Associate Commissioners Ferdinand A. Ramos Soegaard and Sylvia B. Ugarte Araujo did not intervene. I also certify that on July 28, 2026 a copy of this Resolution and Order was notified by electronic mail to: margarita.mercado@us.dlapiper.com; alexis.rivera@prepa.pr.gov. I also certify that today, July 28, 2026, 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 July 28, 2026.



Sonia Seda Gaztambide
Clerk

⁸ Act 57-2014, art. 6.36.