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

IN RE: ENERGY EFFICIENCY AND DEMAND RESPONSE TRANSITION PERIOD PLAN	**CASE NO.:** NEPR-MI-2022-0001 **SUBJECT:** Responses to Requirement of Information Regarding Emergency Load Reduction Program, in Compliance with Resolution and Order of June 20, 2026.

MOTION TO SUBMIT RESPONSES TO REQUIREMENT OF INFORMATION REGARDING EMERGENCY LOAD REDUCTION PROGRAM, IN COMPLIANC3E WITH RESOLUTION AND ORDER OF JUNE 20, 2026

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME now **LUMA Energy, LLC** ("ManagementCo"), and **LUMA Energy ServCo, LLC** ("ServCo"), (jointly referred to as "LUMA"), and respectfully state and request the following:

I. Introduction

In accordance with Puerto Rico Energy Bureau ("Energy Bureau") mandates, LUMA developed and submitted for the Energy Bureau's approval, on May 21, 2025, a pilot Emergency Backup Generator Demand Response Program (now referred to as the "Emergency Load Reduction Program" or "ELRP') to address the energy generation shortfall forecasted for the summer of 2025, through the deployment of emergency backup generators during defined emergency demand response events to prevent load shedding events that could result in impacts to a significant number of customers. This program has the potential to prevent thousands of customers from losing power this summer.

By Resolution and Order of June 20, 2025, the Energy Bureau approved LUMA's Emergency Load Reduction Program proposal and required LUMA to fulfill requirements for

information, on or before July 15, 2025. In compliance with this directive, LUMA is submitting with this Motion its responses to the Energy Bureau's requirements for information on the Emergency Load Reduction Program.

II. Relevant Background and Procedural History

1. On October 23, 2024, the Energy Bureau issued a Resolution and Order ("October 23rd Order") in which, among other determinations, it ordered LUMA to submit a program for the use of backup generators as a demand resource in emergency situations before the summer of 2025 (that is, the Emergency Load Reduction Program) and file monthly reports on the 15th of each month, beginning on January 15, 2025, detailing LUMA's efforts to design and implement the program. *See* October 23rd Order, pp. 4-5.

2. On January 15, 2025, February 15, 2025, March 17, 2025, LUMA submitted monthly reports on the development of the Emergency Load Reduction Program. *See Motion to Submit January 2025 Report on the Development of the Backup Generators Emergency Demand Response Program* ("January 15th Motion"); *Motion to Submit February 2025 Report on the Development of the Backup Generators Emergency Demand Response Program* ("February 15th Motion"); and *Motion to Submit March 2025 Report on the Development of the Backup Generators Emergency Demand Response Program* ("March 17th Motion") In these reports, LUMA provided information on the progress of the development of the program, raising concerns over potential constraints to enrollment due to the restrictions on the air emissions permits of participants, and the potential that formal enrollment in the program would not occur without a waiver of these restrictions. *See* January 15th Motion, Exhibit 1; February 15th Motion, Exhibit 1; and March 17th Motion, Exhibit 1.

3. On April 3, 2025, the Energy Bureau issued a Resolution and Order scheduling a Technical Conference for April 24, 2025, to discuss, among other subjects, the status of the

Emergency Load Reduction Program, invited interested parties to participate, and ordered LUMA to attend. *See id*., pp. 4-5. The Energy Bureau also invited LUMA, the public and other stakeholders to submit comments on the matters discussed at the Technical Conference or otherwise raised in LUMA's motions on or before June 5, 2024. *See id*., p. 5.

4. On April 15, 2025, LUMA submitted a monthly report on the development of the Emergency Load Reduction Program, in which it informed, among others, of its efforts with regulatory agencies to address the air permitting constraints. *See Motion to Submit April 2025 Report on the Development of the Backup Generators Emergency Demand Response Program*, Exhibit 1.

5. On April 24, 2025, the Energy Bureau held a Technical Conference, in which LUMA provided a presentation on the Emergency Load Reduction Program, among other subjects.

6. On April 30, 2025, the Energy Bureau issued a Resolution and Order ("April 30th Order") ordering LUMA to file, among others, LUMA's proposal for the Emergency Load Reduction Program addressing certain subjects specified by the Energy Bureau.

7. On May 14, 2025, LUMA submitted a monthly report on the development of the Emergency Load Reduction Program. *See Motion to Submit May 2025 Report on the Development of the Backup Generators Emergency Demand Response Program*. LUMA informed that the air permitting limitations that constrain customers' ability to participate in the program had not been addressed by the relevant agencies. *See id*., p. 7, Exhibit 1.

8. In compliance with the April 30th Order, on May 21, 2025, LUMA filed its proposal for the Emergency Load Reduction Program. *See Motion to Submit Proposal for Emergency Load Reduction Program in Compliance with Resolution and Order of April 30, 2025*. LUMA requested the Energy Bureau to approve the Emergency Load Reduction Program Proposal and the program's proposed budget and the recovery of the program's costs as part of the quarterly

Power Purchase Cost Adjustment ("PPCA") process in Case No. NEPR-MI-2020-0001, *In re: Puerto Rico Electric Power Authority Permanent Rate* ("Permanent Rate Docket") subject to later reconciliation based on actual expenditures. *See id*., pp. 7-8.

9. On June 13, 2025, LUMA submitted a monthly report on the development of the Emergency Load Reduction Program. *See Motion to Submit June 2025 Report on the Development of the Backup Generators Emergency Demand Response Program*. LUMA noted in the report that customer enrollment was awaiting program approval and action by other agencies to facilitate customer participation. *See id*., Exhibit 1.

10. On June 20, 2025, the Energy Bureau issued a Resolution and Order ("June 20th Order") in which it approved the Emergency Load Reduction Program ("ELRP") through October 31, 2025, and required LUMA to respond, on or before July 15, 2025**,** to the following requirements of information ("ROI") included in Attachment 1 of the Resolution and Order:

1. Refer to pages 4 and 12 of LUMA's ELRP proposal. LUMA states it is targeting enrollment of 50 MW of firm capacity. How many participants does LUMA expect this corresponds to?
2. Refer to pages 4 and 13 of LUMA's ELRP proposal. The Energy Bureau understands that both event participation payments and capacity payments are issued to customers on a quarterly basis as a bill credit. Please confirm this understanding.
3. LUMA's estimate for administrative costs is $2,218,750. Provide support for this estimate. As part of this response, identify the specific costs and any assumptions LUMA used to estimate this budget.
4. Refer to page 11 of LUMA's ELRP proposal.
    a. If a customer provides advance notice of non-participation for three or more events, will the customer face (1) reduction or elimination of the monthly capacity payment and/or 2) potential removal from the program?
    b. How many events can customers opt-out of before they will be removed from the program?
5. If LUMA calls an Emergency DR event during a time in which a customer has no or low load, can the customer inject energy onto the grid and still earn the ELRP event participation incentive?
6. Refer to page 14 of LUMA's ELRP proposal. Confirm LUMA expects it will take approximately 2 weeks to begin ELRP implementation once it receives Energy Bureau approval to collect the ELRP budget. Can LUMA begin

implementation as soon as air permits and customer signups allow, and recover the ELRP costs through the next quarterly PPCA process?

7. Refer to page 3 of LUMA's ELRP proposal, where it states "LUMA's estimates indicate that every 1.5 MW of backup generation deployed during an Emergency DR Event would reduce the number of customers impacted by a load shed event by one thousand."
   a. Please elaborate on how LUMA estimated this impact.
   b. How will LUMA ensure that ELRP resources are only deployed at times when a load shed event would otherwise occur?
8. Has LUMA estimated the dollar benefits to customers associated with avoiding a load shed event?
9. Refer to page 12 of LUMA's ELRP proposal. Please explain how LUMA estimated 75 Emergency events.
10. Refer to pages 3, 4, and 12 of LUMA's ELRP proposal. Please explain whether an Emergency event could last longer than the six hours between 5:00 p.m. and 11:00 p.m., or whether LUMA would end the event after a certain number of hours or a specific time.

See June 20th Order, Attachment A.

11. The Energy Bureau also directed LUMA to continue to actively pursue implementation of the program while preparing the responses to the ROI. *See id*., p.3. In addition, the Energy Bureau found that it was "premature to collect the ELRP budget" "[d]ue to the uncertainty around when and if LUMA will be able to enroll participants" and associated uncertainty of the number of months and events and associated budget. *See id*. As a result, the Energy Bureau did not approve the collection of funds for the program through the PPCA "at this time". *See id*. Furthermore, the Energy Bureau directed LUMA to: continue filing the monthly reports on the status of the program; file a revised budget and timeline for program implementation "once LUMA finds a path to implement the ELRP" containing the information set forth in the Resolution and Order[1]; and file the costs and justifications in the quarterly PPCA process once costs are incurred or the revised budget is approved. *See id*.

[1] The Energy Bureau specified that this filing should contain, at a minimum, the following information to support the requested budget: the information on page 12 of LUMA's ELRP proposal, the expected number of participants and their capacity, and detail on the composition of administrative costs. *Id*.

III. Submittal of Responses in Compliance with June 20th Order

12. In compliance with the June 20th Order, LUMA submits herein its responses to the ROI. *See Exhibit 1*.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned and **accept** *Exhibit 1* herein in compliance with the ROI in the Energy Bureau's Resolution and Order of June 20, 2025.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 11th day of July 2025.

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 the Independent Office for Consumer Protection at hrivera@jrsp.pr.gov; PREPA at arivera@gmlex.net; and mvalle@gmlex.net; and agraitfe@agraitlawpr.com, info@sesapr.org, bfrench@veic.org, evand@sunrun.com, jordgraham@tesla.com, forest@cleanenergy.org, customerservice@sunnova.com, javrua@sesapr.org, pjcleanenergy@gmail.com, cfl@mcvpr.com; mqs@mcvpr.com; and mrios@arroyorioslaw.com.

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Exhibit 1

Responses to ROI

Emergency Load Reduction Program

NEPR-MI-2022-0001

RESPONSE TO JUNE 20, 2025, REQUEST

July 11, 2025

LUMA

List of Responses and Attachments

Response ID	Document Type	Response Subject
ROI-LUMA- MI-2022-0001-20250620-PREB-#001	Response in PDF	Expected Program Participants
ROI-LUMA- MI-2022-0001-20250620-PREB-#002	Response in PDF	Participation and Capacity Payments
ROI-LUMA- MI-2022-0001-20250620-PREB-#003	Response in PDF	Administrative Costs
ROI-LUMA- MI-2022-0001-20250620-PREB-#004	Response in PDF	Non-Participation in Events
ROI-LUMA- MI-2022-0001-20250620-PREB-#005	Response in PDF	Emergency DR Event
ROI-LUMA- MI-2022-0001-20250620-PREB-#006	Response in PDF	ELRP Implementation
ROI-LUMA- MI-2022-0001-20250620-PREB-#007	Response in PDF	Backup Generation Impact
ROI-LUMA- MI-2022-0001-20250620-PREB-#008	Response in PDF	Load Shed Avoidance Benefits
ROI-LUMA- MI-2022-0001-20250620-PREB-#009	Response in PDF	Emergency Events
ROI-LUMA- MI-2022-0001-20250620-PREB-#010	Response in PDF	Emergency Event Duration

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#001

SUBJECT

Expected Program Participants

REQUEST

Refer to pages 4 and 12 of LUMA's ELRP proposal. LUMA states it is targeting enrollment of 50 MW of firm capacity. How many participants does LUMA expect this corresponds to?

RESPONSE

LUMA's goal of enrolling 50 MW of firm capacity under the Emergency Load Reduction Program (ELRP) is based on a combination of confirmed interest from specific commercial and industrial customers, as well as preliminary estimates from additional potential participants.

Specifically, LUMA has identified 27 customers who have expressed strong interest in enrolling in the program, with 13 having a confirmed combined estimated load of approximately 37 MW. An additional 13 MW has been projected based on outreach and preliminary evaluations of the other 14 potential participants. It has been estimated that if at least 20 participants could provide on average 2.5 MW of firm capacity, the program should be capable of obtaining a total of 50 MW demand reduction per event.

It is important to note that while this projection provides a reasonable planning basis, the final number of participants may vary depending on each customer's confirmed generator capacity and their willingness to commit a portion of that capacity for participation under ELRP.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#002

SUBJECT

Participation and Capacity Payments

REQUEST

Refer to pages 4 and 13 of LUMA's ELRP proposal. The Energy Bureau understands that both event participation payments and capacity payments are issued to customers on a quarterly basis as a bill credit. Please confirm this understanding.

RESPONSE

The Puerto Rico Energy Bureau's (PREB) understanding regarding both event participation payments and capacity payments is correct. For the ELRP both event participation incentive payments and capacity incentive payments are issued to enrolled customers on a quarterly basis. These incentives are applied as bill credits to the customers' electricity accounts based on event participation documentation, in alignment with the program's approved compensation structure.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#003

SUBJECT

Administrative Costs

REQUEST

LUMA's estimate for administrative costs is $2,218,750. Provide support for this estimate. As part of this response, identify the specific costs and any assumptions LUMA used to estimate this budget.

RESPONSE

LUMA's estimate is based on its experience implementing the Customer Battery Energy Sharing (CBES) program. However, it assumes higher administrative costs since aggregators will not be leveraged in the ELRP to provide critical in-kind activities such as participant recruitment and enrollment, event verification, customer payment and customer care.

The table below breaks down the estimated administrative budget by category.

Categories	Total Administrative Budget FY2026
Program Management	$1,417,375
Customer Service	$326,000
Professional Services	$475,375
Total Administration Costs	**$2,218,750**

LUMA assumes that 25% of the ELRP budget will be needed for administrative costs covering the following categories:

- Program management encompasses a coordinated set of activities designed to ensure successful event execution and reliable grid support. This includes close collaboration between internal teams to facilitate timely information exchange, support participant engagement, and confirm load reduction commitments. The Business Transformation team plays a central role in managing these processes, ensuring that event operations run smoothly and that system operators have visibility into available capacity in advance of each event.

- Customer service within the program focuses on delivering proactive and responsive support to participating customers. The Business Transformation team ensures that participants receive clear, accurate, and timely communication related to program requirements, inquiries, and event

participation. The team also oversees the validation and administration of performance-based incentives, ensuring that credits are accurately calculated and delivered in a timely manner.

- Professional Services includes support for event evaluation and program Evaluation, Measurement & Verification (EM&V).

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#004

SUBJECT

Non-Participation in Events

REQUEST

Refer to page 11 of LUMA's ELRP proposal.

a. If a customer provides advance notice of non-participation for three or more events, will the customer face (1) reduction or elimination of the monthly capacity payment and/or (2) potential removal from the program?

b. How many events can customers opt-out of before they will be removed from the program?

RESPONSE

The ELRP is designed to encourage participation while recognizing that operational constraints may occasionally prevent customers from contributing. Continued enrollment is contingent on maintaining proactive communication and meeting other program requirements. In that regard, LUMA addresses the PREB's inquiries as detailed below:

a. If a customer fails to respond to 20% of Emergency DR Event Requests or more in a month without advanced notice and justification the Customer's monthly capacity payment will be reduced or eliminated. Continued non-participation without advance notice and justification will result in removal from the program.

b. Continued non-participation with advance notice and justification will result in elimination of the monthly capacity payment. Customers would only receive event incentive payments for events they participate in. Customers are not subject to removal from the program solely for opting out of events. Below are the different scenarios that will be evaluated.

1. Opting Out with Notification: Customers can opt out of events without being removed from the program as long as they notify LUMA and provide justification before the event starts.

2. Participation Requirement: If a customer notifies LUMA in advance but participates in less than 50% of the events in a month for three consecutive months, they may be considered for removal from the program.

3. Failure to Notify: If a customer does not participate in any events and fails to notify LUMA in advance, they will be subject to removal from the program.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#005

SUBJECT

Emergency DR Event

REQUEST

If LUMA calls an Emergency DR event during a time in which a customer has no or low load, can the customer inject energy into the grid and still earn the ELRP event participation incentive?

RESPONSE

No. Under the ELRP, event participation incentives are earned based on the customer's ability to reduce load from their baseline consumption during a grid emergency event. The program is designed as a load reduction initiative, not an energy export program.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#006

SUBJECT

ELRP Implementation

REQUEST

Refer to page 14 of LUMA's ELRP proposal. Confirm LUMA expects it will take approximately 2 weeks to begin ELRP implementation once it receives Energy Bureau approval to collect the ELRP budget. Can LUMA begin implementation as soon as air permits and customer signups allow, and recover the ELRP costs through the next quarterly PPCA process?

RESPONSE

Yes, LUMA expects it will take approximately two weeks to begin ELRP implementation following the PREB's approval to collect the program budget and once all necessary agency regulatory actions relating to the air permits occur and customer signups are finalized. LUMA is prepared to move promptly to launch the program upon satisfaction of these prerequisites.

Given that the compensation model is structured around bill credits rather than upfront disbursements LUMA has the potential to support recovery of ELRP costs through the next quarterly Power Purchase Cost Adjustment (PPCA) process.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#007

SUBJECT

Backup Generation Impact

REQUEST

Refer to page 3 of LUMA's ELRP proposal, where it states "LUMA's estimates indicate that every 1.5 MW of backup generation deployed during an Emergency DR Event would reduce the number of customers impacted by a load shed event by one thousand."

a. Please elaborate on how LUMA estimated this impact.

b. How will LUMA ensure that ELRP resources are only deployed at times when a load shed event would otherwise occur?

RESPONSE

a. LUMA's estimate that every 1.5 MW of backup generation deployed during an Emergency Demand Response (DR) event could reduce the number of customers impacted by a load shed event by approximately 1,000 is based on a general assessment of residential peak demand patterns in Puerto Rico. While peak demand can vary significantly by household depending on factors such as appliance usage, home construction, vintage of equipment, and occupant behavior, LUMA's internal analysis suggests that average household peak demand typically ranges between 1.5 kW and 4.0 kW. Using this range, 1.5 MW of additional capacity could reasonably offset the load of up to 1,000 residential customers under certain system conditions.

   This estimate is intended as a planning-level approximation and may vary depending on the actual mix of participants and customer types enrolled in the program.

b. ELRP resources will only be dispatched under conditions in which the grid is at risk of entering a load shed scenario. Activation will be based on real-time assessments by LUMA's System Operations team and triggered only when emergency conditions exist and additional capacity is required to maintain system reliability. Dispatch of ELRP resources will follow a formal, predefined protocol to ensure activation occurs solely to prevent broader service interruptions.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#008

SUBJECT

Load Shed Avoidance Benefits

REQUEST

Has LUMA estimated the dollar benefits to customers associated with avoiding a load shed event?

RESPONSE

LUMA has not independently conducted a quantitative assessment of the dollar value of benefits to customers associated with avoiding a load shed event.

It is important to note that the value associated with avoiding service interruptions is highly dependent on customer type and context. For residential customers, avoided impacts may include comfort, or disruption to daily life, whereas for commercial or industrial customers, losses may involve productivity, revenue risk. In certain cases, the benefits are more difficult to quantify but nonetheless critical, such as maintaining power for medical equipment, life safety systems, or essential community services.

LUMA recognizes the importance of these avoided impacts and is committed to ensuring that the ELRP contributes meaningfully to overall system reliability and customer protection.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#009

SUBJECT

Emergency Events

REQUEST

Refer to page 12 of LUMA's ELRP proposal. Please explain how LUMA estimated 75 emergency events.

RESPONSE

The estimate of 75 emergency events referenced in LUMA's ELRP proposal is based on projections outlined in the Resource Adequacy Study[1] submitted to the PREB. This study evaluates the reliability of the electric system and identifies the expected number of grid stress periods, particularly during peak demand and low generation availability scenarios. The 75 events forecasted in this case consider that a proportional 15 events (aggregating to the 90 forecasted) would occur in May and June of the forthcoming summer season and not apply to this peak season's total expected events.

[1] The Resource Adequacy report presents a summary of analyses performed by LUMA to evaluate whether Puerto Rico's existing electricity supply resources are sufficient to reliably meet projected electricity demand during the fiscal year. An update to NEPR-MI-2022-0002 - LUMA Resource Adequacy Study was submitted to the PREB on March 24, 2025.

Emergency Load Reduction Program

NEPR-MI-2022-0001

Response: ROI-LUMA-MI-2022-0001-20250620-PREB-#010

SUBJECT

Emergency Event Duration

REQUEST

Refer to pages 3, 4, and 12 of LUMA's ELRP proposal. Please explain whether an emergency event could last longer than the six hours between 5:00 p.m. and 11:00 p.m., or whether LUMA would end the event after a certain number of hours or a specific time.

RESPONSE

While the ELRP is designed to operate primarily during peak demand hours typically between 5:00 p.m. and 11:00 p.m. it is possible, though unlikely, that an emergency event could extend beyond this six-hour window. Peak system stress generally occurs during these hours due to high residential and commercial demand coinciding with limited solar generation availability. Outside of this period, demand typically subsides, and available generation resources are generally sufficient to meet system needs.

There is a possibility that emergency conditions could arise outside the typical peak period. However, based on historical data and system behavior, such occurrences are less frequent.

In extraordinary circumstances, LUMA may request a dispatch period longer than six hours within a 24-hour period. In such cases, and in recognition of the operational and resource constraints faced by participating customers, LUMA does not intend to penalize participants for non-performance beyond the initial six-hour window of an event.

LUMA will continue to evaluate system conditions in real time and activate ELRP resources in accordance with grid reliability needs and the program’s operational principles.