

**GOVERNMENT 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: Proposed Transition Period Plan
Requests for Information

RESOLUTION AND ORDER

I. Introduction

On June 21, 2022, LUMA¹ submitted a Proposed EE² and DR³ Transition Period Plan ("Proposed TPP") to the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau"). On June 28, 2022, the Energy Bureau initiated this proceeding for the review of LUMA's Proposed TPP.

On June 29, 2022, the Energy Bureau held a workshop in this proceeding at which LUMA presented a summary of the Proposed TPP.

On July 13, 2022, VEIC and SESA-PR filed comments on the Proposed TPP in response to the Energy Bureau's request.

On November 4, 2022, the Energy Bureau scheduled a technical conference to: (1) review the Proposed TPP, (2) identify and discuss potential changes to the TPP, and (3) collect stakeholder input and feedback on the Proposed TPP and potential changes.

II. Requests for Information and Comments

To prepare for the technical conference, the Energy Bureau is issuing requests for information to all stakeholders (including LUMA; Appendix A) and LUMA (Appendix B) in this proceeding. These requests for information are intended to provide information for the Energy Bureau to prepare for the technical conference and develop its final Order regarding the Proposed TPP. The Energy Bureau identified these requests for information based on its review of the Proposed TPP and its consideration of previous stakeholder input in this proceeding. Responses to all requests for information are required by **Friday, October 28, 2022**.

The Energy Bureau notes its appreciation for LUMA's Proposed TPP, which contains many promising ideas and programs. The Energy Bureau has also identified seven areas in which it would like to focus its review and potential amendments, including:

1. Education and outreach: LUMA proposed a marketing, education outreach program designed to build market readiness, "foster a culture of conservation and sustainability" and increase customer knowledge and awareness of energy efficiency, demand response, solar PV, and battery storage. LUMA proposed various potential program components including online tools, home energy reports, technical assistance for securing external funding, demonstration projects, and community/stakeholder engagement initiatives. (Pages 28-31 of the Proposed TPP)
2. Residential demand response: LUMA proposed a residential battery demand response program for Year 2 focused on occasional dispatch during peak times beyond baseline load shift patterns. The program requires use of a distributed energy resource management system (DERMS) to coordinate dispatch. (Pages 37-41)

¹ LUMA Energy, LLC ("Management Co") and LUMA Energy ServCo, LLC ("ServCo"), (jointly referred to as "LUMA").

² Energy Efficiency ("EE")

³ Demand Response ("DR")



3. Commercial demand response: LUMA proposed emergency and economic demand response programs leveraging diesel backup generators starting in Year 1. The emergency demand response program provides a financial incentive to the largest 100 customers with backup generators to voluntarily reduce and/or shift load to these generators on the day of a reliability/emergency grid condition. The economic demand response program provides a financial incentive to customers who volunteer a day in advance to reduce and/or shift load to these generators due to high grid prices. (Pages 52-61)
4. Rebate programs: LUMA proposed rebate programs to launch in Year 1. These programs serve existing residential and commercial customers and target specific end uses likely to comprise a significant portion of baseline energy use on the island such as lighting, water heating, refrigeration, and heating/ventilation/air conditioning (HVAC) and provide all customers with the opportunity to participate. Low-income customers are offered 50 to 200 percent larger incentives than non-low-income customers. (Pages 32-36, 47-51)
5. Financing: The Regulation for Energy Efficiency ("EE Regulation") requires that "PREPA shall develop programs that offer customers upfront capital to support the installation of EE measures, coupled with repayment provisions associated with the customer and/or with the meter, where feasible." (Section 4.06(E)) LUMA proposed no financing initiatives in the first few years of the programs.
6. Performance metrics, targets, and incentives: The EE Regulation requires annual reporting with data on costs, energy savings, and participation. Also, the EE Regulation requires that "PREPA shall propose, and the Energy Bureau shall approve, reject, or modify, performance targets and associated payments for the Transition Period Plan that measure performance of utility actions. These activity-based targets could include establishing programs covering particular sectors or end uses, stakeholder engagement activities, and market development, education, and capacity-building actions. For the Transition Period Plan, PREPA may not propose payments for achievement of performance targets that are based on the outcomes of those actions (such as measured energy saved by energy efficiency programs)." (Section 2.02(B)). For the EE programs, LUMA proposed as metrics to track and report on quarterly costs, energy and peak demand savings, and participants by program, sector, and segment. For the DR programs, LUMA proposed to track, and report enrolled customers and load, average impacts per event, annual impacts and impacts as a percent of enrolled load, and average event response. In addition, LUMA proposed education and outreach metrics including the number of events and posts and/or website traffic. LUMA did not propose targets in its Proposed TPP, other than what must achieve by the EE Regulation. LUMA also did not propose performance incentives. (Pages 71-74)
7. Funding sources and mechanisms: LUMA proposed a \$9.8M budget for FY23 of which \$4.6M are start-up costs that LUMA proposes to cover through existing rates. The FY24 proposed budget is \$20.5M. (Pages 80-81)

The Energy Bureau elaborates on its potential amendments and questions related to the seven areas in the requests for information in Appendices A and B.

Appendix A asks stakeholders and LUMA to comment on:

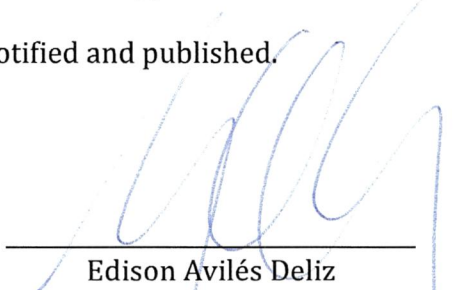
- What they like about the Proposed TPP;
- What they have concerns about in the Proposed TPP;
- The degree to which they agree or disagree with a series of potential amendments to the Proposed TPP provided by the Energy Bureau and why they agree or disagree;
- For any areas of disagreement, one or more potential alternatives for consideration by the Energy Bureau, LUMA, and other stakeholders.

Appendix B asks LUMA specific feasibility questions.




The Energy Bureau **ORDERS** LUMA to respond to questions 3 through 14 in Appendix A and all questions in Appendix B and to file its responses on or before **October 28, 2022**.

Be it notified and published.



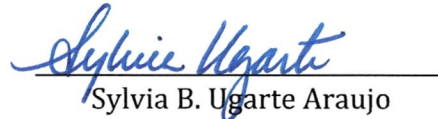
Edison Avilés Deliz
Chairman



Ferdinand A. Ramos Soegaard
Associate Commissioner



Lillian Mateo Santos
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 12, 2022. I also certify that on October 12, 2022, a copy of this Resolution and Order was notified by electronic mail to info@sesapr.org; elevin@veic.org; ana.rodriguezrivera@us.dlapiper.com, laura.rozas@us.dlapiper.com; jmarrero@diazvaz.law, kbolanos@diazvaz.law, hriviera@jrsp.pr.gov. I also certify that today, October 12, 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 12, 2022.



Sonia Seda Gaztambide
Clerk



APPENDIX A: REQUESTS FOR INFORMATION FOR ALL STAKEHOLDERS (INCLUDING LUMA)

Please provide all responses in an electronic, machine-readable format (preferably Word or PDF). Responses to all requests for information are required by Wednesday, October 26, 2022. The first two questions are more general and ask for overall impressions (including both merits and drawbacks) of the Proposed TPP from stakeholders. The other questions provide more specific potential amendments to the Proposed TPP for consideration and comment on by stakeholders and LUMA. With respect to each amendment, responses can:

- Agree with the amendment and provide rationale as to why;
- Disagree with the amendment in full, provide rationale as to why, and suggest one or more alternatives.
- Disagree partially with the amendment, identify the specific areas of disagreement, provide rationale as to why, and suggest one or more alternatives.

1. What aspects of the Proposed TPP do you like? What about these aspects appeal to you and why?
2. What aspects of the Proposed TPP do you have concerns about? What are your concerns?
3. Regarding the education and outreach program, outreach efforts could be expanded to reach the local workforce so that contractors are aware of both the benefits of efficient technologies and upcoming incentive opportunities and can convey them to customers. Demonstration projects could focus on conveying benefits to contractors and potential participants.
 - a. What specific barriers or workforce knowledge gaps should LUMA focus on addressing in outreach efforts to contractors, suppliers, etc.?
4. As for the education and outreach program, LUMA should ensure marketing efforts resonate with customers. The Energy Bureau is considering requiring LUMA to frame programs as increasing affordability, resiliency, and job creation. In addition, LUMA could consider developing marketing materials in Spanish and translating to English, rather than the reverse. Further, LUMA could consider additional ways to best maximize participation and buy-in, such as developing a separate brand for EE programs distinct from LUMA and partnering with community organizations.
 - a. How should programs be branded? (e.g., LUMA, Energy Bureau, or new EE-specific brand?)
 - b. What community organizations could be good partners to help maximize customer participation and buy-in?
5. As for the education and outreach program, the Energy Bureau is considering requiring LUMA to expand the technical assistance program given the passage of the Inflation Reduction Act (IRA) in the time since the Proposed TPP was prepared. This program helps customers maximize benefits from other funding sources, particularly those funded by the IRA and other recent Federal laws.
 - a. How much budget is appropriate to direct toward this program, both generally and for technical assistance?
6. Regarding residential demand response, Solar and Energy Storage Association of Puerto Rico (SESA-PR) indicates in its comments⁴ that there is a substantial untapped residential battery energy storage resource, and that the lack of a DR program is resulting in underutilization of this resource. Based on this finding, the Energy Bureau is considering requiring the replacement of the proposed residential battery demand response program with a scheduled dispatch program for both residential and commercial customers. For example, the batteries could charge during the solar peak between 10am and 2pm daily and discharge between 6pm and 10pm. No dispatch would be required or expected when a storm warning is issued. The Energy Bureau would particularly value answers to these questions from potential battery aggregators, such as the firms that have leased many of the distributed batteries deployed in Puerto Rico.
 - a. Should the program be open to both residential and commercial customers?

⁴SESA-PR. Comments by SESA on proposed EE and DR Transition Period Plan. Docket NEPR-MI-2022-0001. Available at <https://energia.pr.gov/wp-content/uploads/sites/7/2022/07/20220713-Comments-by-SESA-on-Proposed-EE-and-DR-Transition-Period-Plan.pdf>.



- b. Should the program be open to individual battery owners, or only through aggregators?
 - c. Should the program provide a monthly payment (proportional to daily energy charge/discharge in kWh) instead of an upfront payment to better align payments with savings?
 - d. Should the payment amount be based on estimated system-level fuel cost savings from daily arbitrage?
 - e. Should the program provide a larger payment for batteries in critical facilities, or which serve more vulnerable customers?
 - f. How many years' commitment should have to participate in the program?
7. If funds are directed to a scheduled dispatch program and to additional technical support to harness federal efficiency funds, and assuming that the overall budget is fixed, that would require reductions in the budget for other programs.
- a. Which budgets should be reduced, and by how much?
 - b. LUMA proposes a commercial economic demand response program that could utilize backup generators. The Regulation for Demand Response does not allow such a program; it only allows backup generators to be used for demand response in an emergency. How should the proposed budget for this program be reallocated?
8. Regarding the rebate program, the Energy Bureau agrees that the programs should serve existing residential and commercial customers and target specific end uses likely to comprise a significant portion of baseline energy use on the island such as lighting, water heating, refrigeration, and heating/ventilation/air conditioning (HVAC). The Energy Bureau is considering requiring several changes to the product list within the water heating end use.
- a. Should rebates for tankless water heaters be removed from the program?
 - b. Should rebates for heat pump water heaters be added to the program?
 - c. Are there any other promising products and/or end-uses that are missing from the proposed program?
 - d. If so, is there any information on what proportion of energy consumption those products/end-uses currently account for?
9. Regarding the rebate program, the Energy Bureau agrees with LUMA that low-income customers should be eligible for higher incentives than non-low-income customers. However, the Energy Bureau notes that the incentive levels cover 30 to 50 of the incremental cost. The Energy Bureau is considering requiring that the planned incentive levels cover 100 percent of the total costs for low-income residents as this has been shown to be required for participation and this approach is similar to the approach adopted in other jurisdictions.
- a. Should low-income incentives (after accounting for federal rebates, if available) be 100 percent of total costs to enable participation?
 - b. If not, should any increase in the proposed structure for low-income incentives be considered?
 - c. Are any other supports necessary to gain participation by low-income customers?
10. As for the rebate program, the Energy Bureau notes that LUMA has a concern with high participation levels and spending that exceeds budget. The Energy Bureau agrees that program continuity is important and does not want programs to ramp down or cease if interest exceeds budgets. The Energy Bureau is considering requiring a system of program overspending and underspending notifications and a mechanism for adjustments that would allow programs to continue operating. The Energy Bureau is considering a notification system that dovetails with the quarterly reporting process and is triggered based on one or more thresholds. The Energy Bureau is also considering a fully reconciling funding mechanism that allows for approved over and/or under spending to roll into the EE/DR budget for the subsequent year.
- a. What timing for notification would best allow for discussion with the Energy Bureau and mid-course adjustments?
 - b. What threshold(s) for notification are important for program stability and will allow for mitigation of cost underruns or overruns?
11. Regarding the rebate program, the Energy Bureau notes that IRA funding opportunities came about after the proposed TPP filing. The Energy Bureau is



considering requiring an adjustment to TPP rebate programs to account for IRA funding. As mentioned in an earlier question, the Energy Bureau is also considering requiring the addition of technical assistance to enable customers to estimate and claim IRA incentives.

- a. What opportunities exist to coordinate LUMA rebates with IRA rebates implemented by the Public Energy Policy Program (PEPP)?
 - b. What other entities should LUMA coordinate with when engaging to provide technical assistance to customers to access IRA funding?
12. As for financing, the Energy Bureau agrees with LUMA's approach to not offer financing in the first few years of the program given the complexity of this offering and lack of structures in place in Puerto Rico. However, financing can take time to develop and gain consumer trust. The Energy Bureau is considering requiring that LUMA begin developing a pay-as-you-save or similar program and design and implement an on-bill repayment process.
 - a. What other entities should be consulted or involved in this endeavor?
 - b. Please provide suggestions regarding the structure of such a program, and suggestions of potential sources of capital or reserve funds.
13. Regarding performance metrics, the Energy Bureau is considering requiring an expansion of the reported metrics to include estimates of (1) customer energy savings as a percent of usage, (2) bill savings, (3) participation rates by geography, and (4) GHG emission reductions.
 - a. Are there any concerns with these potential metrics?
 - b. Are there any metrics missing that need to be added?
 - c. Is there a resilience/reliability impact metric that LUMA should report?
14. As for performance targets, the Energy Bureau is considering developing a list of activities and associated timing. Rewards and penalties can be administered based on whether the activities were completed as described and on time.
 - a. What activities should be included? What timeframes are reasonable for each activity?
 - b. How much should each activity be worth (in terms of the reward/penalty)? If respondents choose not to recommend specific dollar values, recommendations on relative weights would be welcome.
 - c. How much should all activities be worth (in terms of the total pool of potential rewards/penalties)?
 - d. How should the total pool of potential rewards/penalties be established (as a fixed dollar amount, percent of total EE budget, percent of the available incentive funds in LUMA's contract, etc.)?
 - e. Should there be penalties as well as rewards?
 - f. Should a bonus incentive be offered for exceeding expectations? If so, how would the Energy Bureau establish that LUMA had exceeded expectations?
15. Regarding funding sources and mechanisms, the Energy Bureau is considering the following.
 - For FY23: (1) LUMA budget funds support all activities, including marketing, outreach, and education program implementation, up through and including incentive program launch, (2) EE Rider collection starts after incentive program launch, at a level intended to recover the appropriate share of the budget for FY23, and (3) LUMA and EE Rider funds are not segregated in this year.
 - For FY24 and subsequent years, the Energy Bureau is considering a structure in which: (1) LUMA uses its budget for planning and administration costs and (2) the EE Rider funds incentive costs only.
 - a. Given uncertainty in incentive program launch date, how do we best set the EE Rider value to cover the remaining funds required in FY23? If the Energy Bureau fixed the EE Rider at a set value (e.g., 0.1 cents/kWh) would that be sufficient for program funding and certainty?

What is an appropriate definition of "wide availability" of rebate programs that can be a trigger for the collection of the EE Rider?



APPENDIX B: REQUEST FOR INFORMATION FOR LUMA

These questions are additional to the questions asked of LUMA in Appendix A. Please provide all data in electronic, machine-readable format (preferably Word). Responses to all data requests are required by Wednesday, October 26, 2022.

1. Regarding residential demand response, Solar and Energy Storage Association of Puerto Rico (SESA-PR) stated there is a substantial untapped residential battery energy storage resource, and that the lack of a DR program is resulting in underutilization of this resource. The Energy Bureau is considering requiring the replacement of the proposed residential battery demand response program with a scheduled dispatch program for both residential and commercial customers. The batteries could charge between 10am and 2pm daily and discharge between 6pm and 10pm. No dispatch would be required or expected when a storm warning is issued.
 - a. Can daily dispatch be accomplished with installed hardware and customer lease contracts? Why or why not?
 - b. Can LUMA use metering and communications in the batteries? Why or why not?
 - c. Can LUMA use a scheduled approach rather than DERMS dispatch? Why or why not?
 - d. How can daily dispatch be verified?
 - e. Can LUMA to develop, pilot, and launch such a program in Year 1 rather than Year 2? Why or why not?
 - f. Can LUMA enroll a portion of a battery in the program?
 - g. Can LUMA estimate fuel cost savings from the programmatic load shift to quantify savings to fuel costs?
2. As for the rebate program, the Energy Bureau agrees with LUMA that low-income customers should be eligible for higher incentives than non-low-income customers. However, the Energy Bureau notes that the incentive levels cover 30 to 50 of the incremental cost. The Energy Bureau is considering requiring that the planned incentive levels cover 100 percent of the total costs for low-income residents as this is required for participation and this approach is similar to the approach adopted in other jurisdictions.
 - a. What is the planned coordination with WAP?
 - b. Is income screening feasible? Who will conduct the screening?
3. Regarding the rebate program, the Energy Bureau notes that IRA funding opportunities came about after the proposed TPP filing. The Energy Bureau is considering requiring an adjustment to TPP rebate programs to account for IRA funding. The Energy Bureau is also considering requiring the addition of technical assistance to enable customers to estimate and claim IRA incentives.
 - a. Could LUMA's implementation contractor assist PEPP with this coordination and implementation? In what way(s)?
4. As for financing, the Energy Bureau agrees with LUMA's approach to not offer financing in the first few years of the program given the complexity of this offering and lack of structures in place in Puerto Rico. However, financing can take time to develop and gain consumer trust. The Energy Bureau is considering requiring that LUMA begin developing a pay-as-you-save program and design and implement an on-bill repayment process.
 - h. Could LUMA plan launch a financing program launch in FY25 (the first year of the first three-year plan)? Why or why not?
 - a. What assistance would LUMA need from the Energy Bureau to launch this program?
5. Regarding performance metrics, the Energy Bureau is considering requiring an expansion of the reported metrics to include estimates of (1) customer energy savings as a percent of usage, (2) bill savings, (3) participation rates by geography, and (4) GHG emission reductions.
 - a. Will LUMA leverage an existing database to track results?
 - b. Is there funding in the budget for a new database or necessary database updates?



6. As for funding sources and mechanisms, the Energy Bureau is considering the following.
- For FY23: (1) LUMA budget funds support all activities, including marketing, outreach, and education program implementation, up through and including incentive program launch, (2) EE Rider collection starts after incentive program launch, at a level intended to recover the appropriate share of the budget for FY23, and (3) LUMA and EE Rider funds are not segregated in this year.
 - For FY24 and subsequent years, the Energy Bureau is considering a structure in which: (1) LUMA uses its budget for planning and administration costs and (2) the EE Rider funds incentive costs only.
 - a. The Energy Bureau would like to better understand the timeframe for how revenue flows in response to customer consumption. Please provide a timeline mapping consumption to billing to funds received by LUMA. That is, if a customer uses a kWh on a particular day, when does that consumption show up on that customer's bill? How many days after the billing month does the customer receive the bill? How long does the customer must pay the bill? When does it actually show up in LUMA's accounts, and is able to be spent?
 - b. Relative to the start date of rebate programs, when would the EE Rider value need to be established, and when does it start getting collected, so it would not appear on bills until 2 weeks after programs are widely available?

