

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

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IN RE: DEMAND RESPONSE PLAN
REVIEW, IMPLEMENTATION AND
MONITORING

CASE NO.: NEPR-MI-2021-0006

SUBJECT: Joint Motion in Compliance

**JOINT MOTION IN COMPLIANCE WITH RESOLUTION
AND ORDER ENTERED ON APRIL 21, 2021**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME NOW, the Puerto Rico Electric Power Authority (the “Authority”) and LUMA Energy, LLC and LUMA Energy Servco, LLC (collectively known as “LUMA”) (jointly, “the Parties”), through their respective undersigned legal counsel and respectfully state and request the following:

1. On April 21, 2021, the Puerto Rico Energy Bureau of the Public Service Regulatory Board (the “Energy Bureau”) issued a *Resolution and Order*¹ directing the Puerto Rico Power Authority and LUMA to provide responses to questions included in Attachment A of the Order on or before April 23, 2021, as well as to appear during the Technical Conference to be held on April 27, 2021, that will be held in accordance to the agenda set by the Energy Bureau in Attachment B of the Order.
2. On April 23, 2021, the Parties filed a *Joint Motion to Request Extension to Comply with the Resolution and Order Entered on April 21st, 2021 and to Reschedule Technical Conference* (the “Joint Motion”). In the Joint Motion, the Parties requested an extension of time to submit the responses to the questions included in Attachment A of the Order by April 30, 2021, and to re-

¹ *Resolution and Order* entered on April 21, 2021 (the “Order”).

schedule the Technical Conference for May 11, 2021. On April 26, 2021, the Energy Bureau issued a *Resolution and Order*² granting the Parties' request.

3. In compliance with the Order, the Parties hereby submit *Response to Attachment A: Questions for PREPA and LUMA*. Exhibit A.

WHEREFORE, the Authority and LUMA request the Energy Bureau to find the Parties in compliance with the Order.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 30th day of April 2021.

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² *Resolution and Order* entered on April 26, 2021.

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Exhibit A

LUMA



Demand Response Plan Review, Implementation and Monitoring

Response to Attachment A: Questions for PREPA and LUMA

NEPR-MI-2021-0006

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1.0 Response to Questions

QUESTION 1: What is PREPA's current thinking regarding how it will promptly capture the value of the existing distributed battery energy storage resource?

a. Does PREPA intend to capture storage value via DR programs?

Conceptually, battery storage offers significant promise as a demand response resource. One potential opportunity could be a program to promote shifting load to battery storage instead of on-site backup generators. For some customers this would involve installing new battery storage where no backup previously existed. For other customers this might involve replacing/supplementing existing backup generation with new battery storage. Though the economics of the latter scenario may not be the most cost-effective or practical use of program funding.

The other option to utilize batteries for DR is to dispatch batteries during DR events. There is growing activity in the industry in this area. A few utilities have piloted this option and are scaling these pilots up to full programs. This is an area of future consideration for PREPA.

However, very little customer/market research has been completed to understand which customers have BESS resources or to gauge their interest and willingness to participate. As a result, the magnitude of value that can be captured through storage and the timeline for doing so are very difficult to assess without additional market research and program testing. For these programs to be successful a reliable, stable funding source to pay for demand resource participation is needed.

b. Does PREPA know which customers have BESS resources?

PREPA, through its web portal, has been registering storage information of clients that apply for the Net Metering Program since July 2020. Before that date, PREPA does not have reliable numbers, since the portal did not have provisions to insert energy storage availability. Additionally, there were significant number of clients that were not registered and installed their storage right after Hurricane María, as part of Executive Order OE-2017-64.

c. Does PREPA expect this resource to be reflected as a virtual power plant (VPP) resource via its current procurement solicitation?

Yes. As part of the RFP, VPPs can be represented as DR resources. Furthermore, RFP defines VPPs as: "VPP means (i) a Demand Response Resource, or (ii) any combination of a Renewable Energy Resource, Energy Storage Resource and Demand Response Resource, in each case with an aggregated net capacity of at least five (5) MW, connected to the distribution system, which a Proponent aggregator or its agent, assembles, registers, contracts to call upon and control, monitors, control and makes available for direct or indirect dispatch by PREPA or its successor through a software-based central control system in accordance with the terms of the VPPA.

QUESTION 2: The Guidehouse proposal, included as Exhibit A to the Motion, does not identify a timeframe for the launch of DR programs, whether as pilots, quick start programs, or full-fledged programs.

a. What is PREPA's current expectation regarding when it will launch any DR programs?

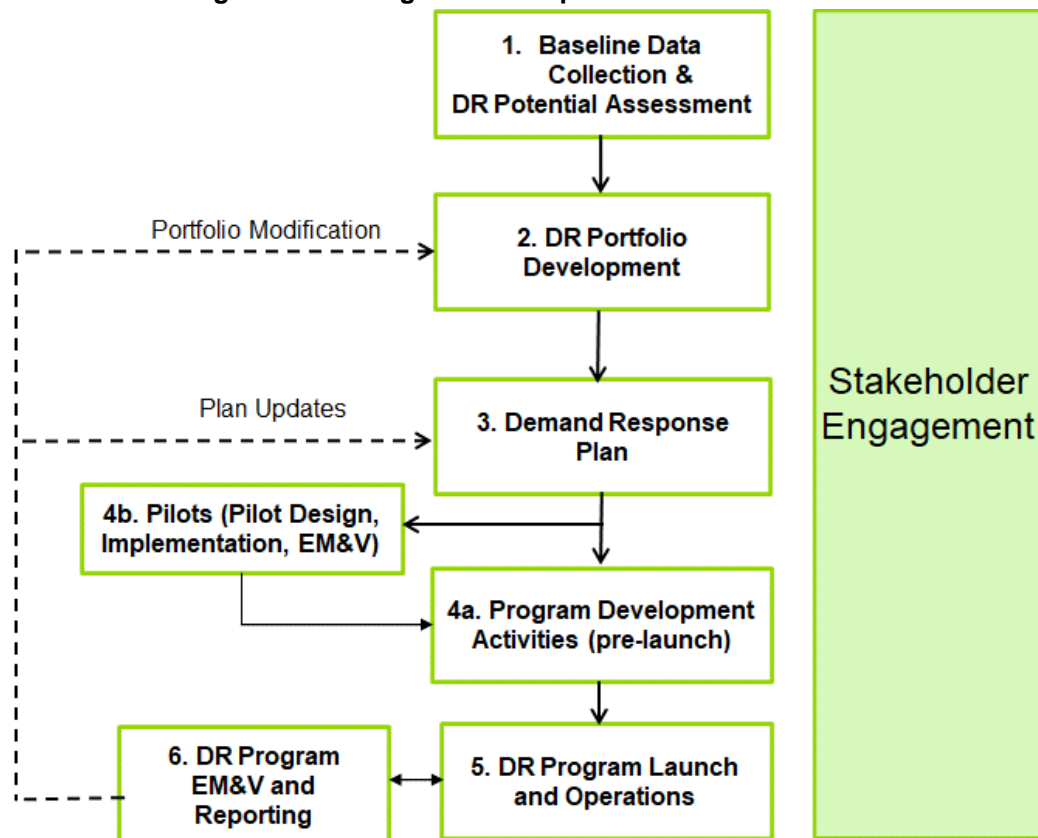
PREPA is focused on working with our consultant Guidehouse and LUMA to develop a DR program that is practical, provides effective implementation and ultimately complies with established regulations. At this point, PREPA does not foresee the implementation of such program before commencement date of June 1, 2021, when LUMA will take over Operation and Maintenance of T&D assets.

Timelines were not included in the Guidehouse proposal for several reasons. First, we expect the regulatory and funding process will take time to complete and there is uncertainty around this timing. Second, research and planning are required first before we can establish a reasonable estimate of timing for program launch. In carrying out the research and planning, attention will be paid to programs which can be piloted or offer a quick start launch. Planning is needed to understand which types of programs will be successful in Puerto Rico before we understand which programs to launch and how long they will take to launch.

Figure 1 below is a flowchart showing, at a high level, the different stages leading to launch of DR pilots/programs starting with the baseline data collection and potential assessment step. The DR potential assessment and portfolio development process (Steps 1 and 2 below) will start with a broad menu of DR options and narrow these down based on Puerto Rico's needs, market suitability and cost-effectiveness assessment. These two steps will help specify realistically achievable DR potential by program type and market segment, provide itemized program costs and assess which DR options are cost-effective. The outcomes from Steps 1 and 2 will provide the building blocks for the DR Plan and will help prioritize DR pilots/programs that are best suited to Puerto Rico (Step 3 in the flowchart).

After the DR Plan is developed, PREPA/LUMA will need to undertake a series of pre-launch program development activities (indicated in Step 4 in the flowchart below and described in our response 2.c). Depending on the nature and complexity of programs, these steps may take anywhere from 6-18 months to complete after the Plan is developed and prior to program launch. Simultaneously, PREPA/LUMA can explore the possibility of launching early DR pilots to test impacts and customer acceptance, though with greater uncertainty around outcomes.

Figure 1: DR Program Development Process Flowchart



Pre-launch program development activities (Step 5 in Figure 1) include but may not be limited to:

- **Program Staffing**
 - Staff a dedicated DR program team (will involve hiring)
 - Train utility staff for DR program administration
- **Program Delivery Strategy**
 - Decide on program delivery strategies and select third-party program implementer and/or aggregators. This may vary by program type
 - This will involve vendor RFP development, vendor selection and contracting, plus onboarding the implementer and/or aggregators
 - As part of this process, vendor roles and responsibilities vis—à-vis internal utility staff need to be established
- **Program Marketing, Customer Education and Outreach**
 - Develop detailed program marketing materials, which will likely need to be customized by program type and customer segment
 - Develop customer education and outreach strategies, customer touchpoints with a customer journey map
 - Define roles and responsibilities of third-party implementer and/or aggregators
 - Launch DR education and awareness campaigns
- **Program Operations Process Development**
 - Event dispatch mechanism / operations

- Specification of control and communication technologies
- Incentive processing strategies
For example, depending on the volume of participation, an external contractor will likely be needed to conduct specialized program implementation services such as incentive application processing; especially during the early period before LUMA has time to staff and train these capabilities in-house
- Rates design before launching pricing programs if these were to be offered (e.g., Critical Peak Pricing Program)
- Measurement and verification procedures

b. What is LUMA's current expectation regarding DR programs? Will LUMA continue programs that PREPA launches before the transition? When will LUMA launch DR programs if PREPA has not launched them by the time of the transition?

No DR programs will be launched before the transition. See the response in 2.a above.

c. What specific steps must be completed before pilot or quick-start DR programs could be launched? What steps could be completed in parallel while pilot or quick-start DR programs are in operation?

Specific steps to be completed before pilot or quick-start DR programs could be launched are discussed in 2.a above.

However, PREPA's last DR status report indicated very little interest among potential participants (PREPA's 55 highest demand industrial and commercial customers).¹ This lack of "market readiness" likely means additional time and effort up front will be needed for education and communications campaigns to overcome common barriers to active participation in DR programs (misconceptions, mistrust) and to craft the right value-proposition. For instance, many customers keep their AC turned very low to prevent mold growth and may be reluctant to participate in air-conditioner demand response programs (e.g. direct load control) if they perceive a lack of ability to over-ride the event.

Because we do not have experience in the market with DR programs yet, we face uncertainty on the level of participation to expect from each program type. The planning activities we have proposed are needed to first understand which types of programs will be successful in Puerto Rico. The timeline for launch and delivery may vary among program types, depending on "market readiness."

If PREB were willing to allow for uncertainty in outcomes regarding any pilots that are launched which pre-date the DR Plan, PREPA/LUMA would consider launching a pilot emerging from the DR Strategic Plan. A pilot could be used to test curtailment strategies, collect data on DR impacts, and gather insights on customer preferences for program parameters.

For example, it may be possible to identify the top large commercial and industrial customers that have significant contribution toward demand and design a pilot that could test different types of

¹ Demand Response Status Report, December 30, 2020, Case No. CEPR-AP-2018-0001.

control strategies by segment. This would help identify where most DR opportunities may lie once a full program is launched. The pilot could also help determine customer preferences for program parameters (e.g., event duration, notification, event frequency) and help design a flexible program suited to customer needs. Similarly, for residential customers, it may be possible to launch pilots to test DR impacts from control of space conditioning equipment before a full program is launched. Testing performance through pilots is a critical step before program launch, given no DR experience exists in PR and experience from other jurisdictions in the U.S. will likely not apply to PR. These concepts would be identified as part of the DR Strategic Plan development and analysis.

QUESTION 3: Please describe how PREPA, LUMA, and Guidehouse plan to handle the PREPA to LUMA transition regarding DR.

a. Does Guidehouse's contract transition to LUMA?

As part of LUMA's Front-End Transition services, LUMA is preparing to provide continuity of service. This includes continuity with respect to interactions with PREB on the Demand Response proceeding, among others. Under the OMA, LUMA can assume System Contracts from PREPA and is currently evaluating all System Contracts. LUMA has become actively involved in DR planning with PREPA and Guidehouse, and expects a smooth transition regarding these ongoing activities.

QUESTION 4: Please describe in more detail the stakeholder engagement that PREPA/Guidehouse and LUMA believe are appropriate at different stages of DR program development and implementation.

In its two proposed phases of work, the Guidehouse team addresses stakeholder engagement as part of the DR planning stage specifically, rather than in later stages such as program implementation. As proposed, Guidehouse's Phase 1 would produce a DR Strategic Plan with one stakeholder conference approximately 3-4 months after preliminary data collection and plan development begins. This stakeholder conference would involve sharing information and soliciting feedback about the initial suggested portfolio of DR programs, top-down savings and cost estimates, and indicative cost-effectiveness. Phase 2 would produce the final Three-Year DR Plan with two stakeholder conferences. The first Phase 2 stakeholder conference would occur approximately 5 months after primary research and data collection begins and would involve sharing information and soliciting feedback about the DR baseline study, including customer surveys and other data collected. The second stakeholder conference would occur approximately 2-3 months later, and would involve sharing information and soliciting feedback on the draft Three-Year DR Plan. LUMA values stakeholder engagement and will continue to engage with stakeholders throughout the program development and implementation stages, at points to be determined.

QUESTION 5: The Energy Bureau has published a Proposed Regulation for Energy Efficiency ("EE") that contains a Three-year EE planning obligation. The Energy Bureau's goal is to align the schedules for the three-year plans between EE and DR. Due to the financial implications, the Energy Bureau considers that the three-year plans should be aligned with fiscal years (i.e. July 1 to June 30).

a. What would be required regarding DR planning and analysis to begin a three-year DR period on July 1, 2022?

PREPA/Guidehouse and LUMA respectfully request clarification on this question and recommend discussing further at the upcoming Technical Conference. We would like to understand what the “three-year DR period” means in this context and what it would entail.

As discussed in 2.c, if PREB were willing to allow for a higher degree of uncertainty in outcomes regarding any pilots that are launched which pre-date the DR baseline data collection and DR potential assessment leading to the DR Plan development, PREPA/LUMA would consider launching a pilot emerging from the DR Strategic Plan. A pilot could be used to test impacts from curtailment strategies, customer preferences for program design features and assess customer interest in participating.

Before pilots are designed, it will be important for PREB to establish the basics of the regulatory framework for pilots, in particular to indicate pilots are for investigative purposes and would not have specific targets assigned to them by PREB. PREPA/LUMA would be prepared to make recommendations to PREB on the regulatory framework for the treatment of pilots.

b. Would those requirements be changed in any way if the Energy Bureau were to explicitly allow for a revised plan to cover the second and third years of the Three-year plan?

The opportunity for a revised plan in the second and third years of the Three-year Plan would give PREPA/LUMA sufficient flexibility to benefit from lessons learned from the experience in delivering the programs and the results of program evaluations conducted, and make mid-course corrections through the revisions to the plan to improve participant numbers and savings achieved.

QUESTION 6: The Energy Bureau intends to conduct an EE and DR market baseline study between summer 2021 and spring 2022. Guidehouse suggests it would undertake a similar DR study by the fall of 2021, to inform the Three-year DR plan to be filed in 2022. The Energy Bureau sees value in both a faster study (as proposed by Guidehouse), to inform initial program planning, and a more comprehensive study (that could support program refinement and expansion beyond early pilots/quick start programs).

a. Could Guidehouse provide more detail regarding its proposed DR study? Could Guidehouse collect limited information regarding EE as part of its research?

Guidehouse plans to collect end-use equipment saturation information relevant for DR in the baseline study. Some of that information and its data collection process overlaps with EE. For example, control technologies such as programmable thermostats, energy management system, and lighting controls, provide EE benefits and enable DR. Guidehouse plans to collect baseline information on these and other similar technologies that enable DR and provide EE savings. However, the proposed DR baseline survey will

not include EE measures that do not enable DR. For example, data on building envelope measures that are EE only and are not relevant for DR will not be included in the baseline data collection.

In addition to data collection on applicable end-uses and equipment saturations for DR-enabling technologies, Guidehouse will include questions to assess customer willingness to enroll in DR programs in the primary research.

b. What steps are required to ensure that data collected during PREPA/Guidehouse's study is shared with the Energy Bureau's selected baseline study consultant, to avoid duplication and increase consistency between the studies?

PREPA/Guidehouse will share the primary research approach and the survey instruments with the Energy Bureau's baseline study consultant to ensure coordination and avoid duplication. To ensure consistency between the two studies, the research approach between the two studies needs to be aligned, so there needs to be coordination between PREPA/Guidehouse and Energy Bureau's Consultant at the time the research plan for the baseline studies is being developed. Additionally, PREPA/Guidehouse will share baseline study findings with the Energy Bureau's Consultant after the study is completed.

Guidehouse would like to provide feedback on the terms of reference for the PREB Consultant baseline study.

c. How will PREPA incorporate the results of the Guidehouse DR baseline/potential study into its programs/timing?

The baseline study information will serve as direct inputs for developing the DR potential estimates. It will provide end-use shares and equipment saturation data to inform customer eligibility for different DR options. The potential study in turn lays the groundwork for developing a portfolio of DR programs targeted to Puerto Rico and indicates achievable savings potential from different DR programs with an estimation of program costs and assessment of cost-effectiveness of programs.