

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

NEPR

Received:

Aug 16, 2021

4:39 PM

IN RE: PUERTO RICO TEST FOR DEMAND  
RESPONSE AND ENERGY EFFICIENCY

CASE NO.: NEPR-MI-2021-0009

SUBJECT: THE INDEPENDENT  
CONSUMER PROTECTION  
OFFICE'S RESPONSES TO  
QUESTIONS 1-4 OF THE ENERGY  
BUREAU'S JULY 21, 2021  
RESOLUTION AND ORDER

INDEPENDENT CONSUMER PROTECTION OFFICE'S  
RESPONSES TO THE ENERGY BUREAU'S  
QUESTIONS OF THE AUGUST 3, 2021 RESOLUTION

COMES NOW, THE INDEPENDENT CONSUMER PROTECTION OFFICE  
(ICPO), through the undersigned attorneys, and very respectfully states and prays:

I. INTRODUCTION

1. On May 14, 2021, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order through which initiated this proceeding for the Puerto Rico Cost Test as required on Regulation 9246, *Regulation for Demand Response*, of December 21<sup>st</sup>, 2020.

2. As part of the instant process, two technical workshops have been held. The first one on June 30, 2021, and the second one on July 31, 2021.

3. On August 3, 2021, the Energy Bureau issued a Resolution ("August 3 Resolution") with 4 questions to be answered by LUMA Energy ServCo and stakeholders.

4. Complying with the August 3 Resolution, the ICPO hereby submits its answers to questions 1-4.

**II. STANDING OF THE INDEPENDENT  
CONSUMER PROTECTION OFFICE (“ICPO”)**

5. The Independent Consumer Protection Office was created by Act 57-2014, *supra*, to educate, advise, assist, and represent customers of the services under the jurisdiction of the Puerto Rico Public Service Regulatory Board, such as power service customers in the Commonwealth of Puerto Rico.

6. Within the powers and duties enumerated in Section 6.42 of Act 57-2014, *supra*, the ICPO shall have the followings:

- (a) Educate, inform, and provide orientation and assistance to customers on their rights and responsibilities with regard to the electric power service and the public policy on savings, conservation, and efficiency, telecommunication services, and those under the jurisdiction of the Transport and other Public Services Bureau;
- (b) Evaluate the impact that the rates, public policy, and any other issue may have on electric power, telecommunications, and transport services customers in Puerto Rico;
- (c) Defend and advocate for the interests of customers in all matters brought before the Energy Bureau, the Telecommunications Bureau, the Transport and other Public Services Bureau or being addressed by the Energy Public Policy Program of the Department of Economic Development with regard to electric power rates and charges, the quality of the electric power service, services provided by electric power service companies to their customers, resource planning, public policy, and any other matter of interest for customers;  
(...)
- (e) Participate in the rate adoption or modification process for issues affecting electric power, telecommunications, and transport services' customers;

- (f) Make independent recommendations to the Bureaus regarding rates, bills, public policy, and any other issue that may affect services' customers in Puerto Rico;
- (g) Request and advocate for just and reasonable rates for the consumers represented by the Office;
- (h) Participate or appear as intervenor in any action brought before a government agency of the Government of Puerto Rico or the Federal Government with jurisdiction, in connection with rates, bills, public policy, and any other issue that may affect electric power, telecommunications, and transport services' consumers and/or customers;
- (...)

7. Fulfilling its duties with Act 57-2014, *supra*, the ICPO hereby submits its answers to the four (4) questions stated by the Energy Bureau on the August 3<sup>rd</sup>, 2021 Resolution.

### III. ICPO'S RESPONSES

#### **1. How should the Integrated Resource Plan ("IRP") best be used to help define energy and capacity impacts within the PR Test?**

The current IRP does not define energy and capacity impacts applied to EE & DR and DER's. It should be applicable to prospective IRP revisions since the current IRP treated EE&DR as scenario conditions, such as high or low level of implementation, rather than considering EE&DR as a generation resource to be evaluated against other generation resources. While the current IRP was being developed, the utility claimed not to have enough data to develop a well thought out EE&DR strategy or plan. Therefore, cost and feasibility studies have to be done before the upcoming IRP revision. The same goes for DER's. The Utility did not consider DER's in the current IRP as a utility energy resource,

but rather as a scenario condition or impact factor which was considered in load forecast development.

Although, in the Puerto Rico Test Workshops discussions, proxy values have been suggested as a starting point, they should be replaced by hard data as soon as possible. EE&DR successful programs depend on a high participation rate of educated and motivated consumers or ratepayers, according to their needs and preferences to do so.

The value of EE&DR and DER's should be defined beyond only energy and capacity. For example, high-efficiency measures or appliances typically used at nighttime, or that may impact nighttime peak, should rank higher than appliances used during the daytime. A higher value might be assigned also for energy storage means that may help to shift capacity needs from high demand nighttime to day time hours when solar energy is available, such as the following:

- Solar water heaters with storage tanks that provide hot water at a typical nighttime use.
- Ice storage for nighttime use in air conditioning when the ice is produced with solar PV energy during daytime hours, when solar energy is available.
- PV systems with storage that may be used to export energy at nighttime.

The following is a sample table that we present as a brainstorming exercise of how a value may be assigned for utility and customer cost and benefits of some EE&DR measures.

SAMPLE OF IMPACTS VS. MEASURES					
	MEASURES				
	COMMERCIAL	RESIDENTIAL	RESIDENTIAL	COMMERCIAL	RESIDENTIAL SOLAR
IMPACTS	LIGHTING	LIGHTING	A/C	A/C	WATER HEATER
Energy	+	+	+	+	+
Capacity	+	+	+	+	+
Load Shifting					+
Energy Storage					+
Life Expectancy		+	+	+	+
Environmental	+	+	+	+	+
Public Health					+
Time of Use					+
Seasonal				+	+
Demand Response				+	
Grid Electric Stability			+	+	
Peak Shaving				+	
Local Manufacturing Economy					+
Return of Investment	+	+	+	+	+
Reliability					+
Resilience					+
Renewable Portfolio Compliance					+
Safety	+	+			
NOTE: "+" should be replaced by percentage weights as available data allows it.					

**2. What does LUMA uses as the definition of system peak when it plans investment in infrastructure?**

System peak includes generation resources to be used to cover daily or seasonal high energy use periods. This also includes generation resources reserves to ensure the availability of generation during such events. Energy efficiency keeps energy

consumption low, and demand response is one specific tool to deal with the system or locational event peaks that compete against other generation peaking sources in terms of response speed, cost, and sustainable length of time and capacity of such measures. Therefore, the infrastructure investment plan should consider grid intelligence to allow visibility of the distribution system in terms of electrical stability and power flow to enable the maximum benefit of EE&DR and DER's at different transient or steady-state grid conditions and daily or seasonal energy demand variations as well.

**3. What are the current environmental regulations (Federal and Puerto Rico) that should be reflected in the cost of generating electricity?**

MATS affects residual oil burning power plants due to time limitations on the use of those facilities, even though, by design, higher efficiency is reached under baseload operation. All fossil fuel generating facility is affected by environmental compliance. Therefore, as generation sources shift from fossil fuel to renewables, costs should be less, benefits will increase due to lower environmental compliance pressure and expected future lower cost of renewable and storage sources compared to fossil fuel ones.

**4. What should be considered the baseline level of reliability, and should that change over time?**

Higher reliability makes resiliency and recovery measures and procedures necessary only in the case of extreme events when the system may fail. Continuous or frequent infrastructure "restoration" or patchworks impair service quality and may even reduce utility revenue due to frequent and prolonged power outage periods.

Higher value should be assigned to measures that improve T&D system efficiency and reliability. This may also include assigning value to ancillary services in addition to energy or capacity. Higher reliability that results in lower power outage rates means a better utility service capability to keep producing revenues. Also, the reliability and resilience of DER's embedded with other EE&DR measures should be explored in the context of mini or microgrids arrangements, including virtual power plants that may not necessarily be located within specific premises, compared to the organic dispersed DER's current development.



WHEREFORE, it is respectfully requested from the Energy Bureau to take notice of the ICPO's answers herein to the August 3 Resolution's questions.

Respectfully submitted.

In San Juan P.R. this 16 day of August 2021.

#### **CERTIFICATE OF ELECTRONIC FILING AND SERVICE**

I HEREBY CERTIFY that on this date copy of this motion has been electronically filed with the Clerk of the Puerto Rico Energy Bureau which will give notice to all participants in the instant case.

**OIPC**  
 268 Hato Rey Center,  
Suite 802  
San Juan, P.R. 00918  
 787.523-6962

s/Hannia B. Rivera Díaz  
Hannia B. Rivera Díaz, Esq.  
Director  
[hrivera@jrsp.pr.gov](mailto:hrivera@jrsp.pr.gov)  
RUA 17,471

s/Pedro E. Vázquez Meléndez  
Pedro E. Vázquez Meléndez, Esq.  
[contratistas@jrsp.pr.gov](mailto:contratistas@jrsp.pr.gov)  
RUA 14,856