

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

<b>NEPR</b>  <b>Received:</b>  Jul 21, 2021  6:27 PM
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**IN RE:**

IN RE: THE UNBUNDLING OF THE  
ASSETS OF THE PUERTO RICO  
ELECTRIC POWER AUTHORITY

**CASE NO. NEPR-AP-2018-0004**

**SUBJECT: Motion Submitting Exhibits A, B and  
C and Revised Tables of Cost of Service Study.**

**MOTION SUBMITTING EXHIBITS ADMITTED INTO EVIDENCE ON JULY  
19, 2021 AND REVISED TABLES OF COST OF SERVICE STUDY**

**TO THE HONORABLE PUERTO RICO ENERGY BUREAU:**

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

1. Pursuant to a Resolution and Order issued by this honorable Puerto Rico Energy Bureau (“Energy Bureau”) on June 22, 2021, which amended in part the Resolution and Order and procedural calendar issued on February 5, 2021, an evidentiary hearing was held in this proceeding on July 19<sup>th</sup> and 20<sup>th</sup>, 2021.
2. During the evidentiary hearing of July 19, 2021, upon a request by LUMA, the Energy Bureau admitted into evidence the following three exhibits:
  - a. Exhibit A- LUMA’s Response to question 7 (AP-2018-0004-PREB-LUMA-ROI-SET03-2021-06-24-07) of the Energy Bureau’s Second Requirement of information, at pages 9 through 12;
  - b. Exhibit B- Revised Figure 2-4 Supply Stack by Type, included at page 3 of LUMA’s Response to question 1 (AP-2018-0004-ICPO-LUMA-ROI-SET02-2021-06-21-01) of

the First Requirement of Information issued by the Independent Consumer Protection Office; and

- c. Exhibit C- Amended workpapers filed with LUMA's Response to question 17 (AP-2018-0004-PREB-LUMA-ROI-SET03-2021-06-24-13) of the Third Requirement of Information issued by the Energy Bureau, (pdf text of Response 17 and excel table with revised workpapers).
3. With this Motion, LUMA respectfully submits a copy of the Exhibits A, B, and C, that were admitted and marked as evidence in this proceeding on July 19, 2021. *See* Exhibit 1 to this Motion. The revised workpapers that were marked as Exhibit C, will be submitted via email in excel spreadsheet format.
4. During the evidentiary hearing of July 19, 2021, LUMA also requested and was granted leave to file amended versions of tables E-1, E-2, and E-3, of the Summary of the 2021 Cost of Service Study that was submitted on May 17, 2021 as Exhibit B of the Direct Testimony of Mrs. Margot Everett. Tables E-1, E-2, and E-3 are found at pages iv and v of the 2021 Cost of Service Study. As authorized by the Energy Bureau, LUMA hereby submits the revised versions of Tables E-1, E-2, and E-3, of the Summary of the 2021 Cost of Service Study. *See* Exhibit 2 to this Motion.

**WHEREFORE**, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned, **accept** the marked copies of Exhibits A, B and C that were admitted into evidence during the proceedings held on July 19, 2021 and that are submitted as Exhibit 1 to this Motion; and **receive and consider** the revised versions of Tables E-1, E-2, and E-3 of the Summary of the Cost of Service Study that are submitted as Exhibit 2 to this Motion.

**RESPECTFULLY SUBMITTED.**

In San Juan, Puerto Rico, this 21<sup>st</sup> day of July 2021.

I hereby certify that I filed this Motion using the electronic filing system of this Puerto Rico Energy Bureau. I hereby certify that I will send notice of this filing to intervenors: Cooperativa Hidroeléctrica de la Montaña, via Ramón Luis Nieves Esq, [ramonluisnieves@rlnlegal.com](mailto:ramonluisnieves@rlnlegal.com); Office of the Independent Consumer Protection Office, [hrivera@opic.pr.gov](mailto:hrivera@opic.pr.gov) and [contratistas@oipc.pr.gov](mailto:contratistas@oipc.pr.gov); Puerto Rico Manufacturer's Association via Manuel Fernández Mejías Esq., [manuelgabrielfernandez@gmail.com](mailto:manuelgabrielfernandez@gmail.com); and Ecoeléctrica via Carlos Colón, Esq., [ccf@tcm.law](mailto:ccf@tcm.law). It is also certified that I will serve notice of this motion to counsel for the Puerto Electric Power Authority, Katuska Bolaños, [kbolanos@diazvaz.law](mailto:kbolanos@diazvaz.law).



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***Exhibit 1***

*Exhibits A, B and C admitted into evidence on July 19, 2021*

*Revised workpapers marked as Exhibit C, to be submitted via email in excel spreadsheet format*

## Response: AP-2018-0004-PREB-LUMA-ROI-SET03-2021-06-24-07

### REQUEST

Did Guidehouse review the fuel cost reports that PREPA files with the Energy Bureau in its FCA quarterly filings?

- If so, what information was missing from those reports that would have been needed to determine "individual plant cost"?
- If not, why did Guidehouse not review those filings?

### RESPONDER

Margot Everett, Director - Guidehouse

### RESPONSE

Yes, Guidehouse reviewed the data provided in the FCA quarterly filings. The plant data are aggregated differently and thus assumptions must be made on how to classify plants. The main issue is that the data is quarterly and not annual, and also the same data were not available for the 2017 pricing.

Nevertheless, there are estimates of quarterly kWh in the filings that could be used rather than capacity to allocate. Also, after consultation with LUMA, Guidehouse has learned that there are costs in the FCA related to PPOAs (namely the Ecoelectrica fuel costs) as a result of recent contract negotiations. Therefore, these costs must be netted from the FCA and added to the PPCA. Lastly, in response to suggestions in the Technical Conference, Guidehouse has adjusted where the AES contract is in the supply stack (now comes before San Juan 5) and recalculated the ratios allocation of the PPCA and FCA costs to dispatchable and non-dispatchable.

Below is Revised Table 2-10 with recalculation of the dispatchable and non-dispatchable based on capacity stack (proposed method included in filing).

**Revised Table 2-10. Capacity Weighting of Generation Plants**

Type	Dispatchable	PPOA Units	UOG Units	Total	PPOA Units	UOG Units
		(MW)	(MW)	(MW)	(%)	(%)
Renewable (As Generated) Units	Not Dispatchable	222	156	378	18%	4%
Baseload Units	Not Dispatchable	534	0	534	44%	0%
Thermal Units	Dispatchable	454	2,820	3,274	38%	75%
Peaking Units	Dispatchable	0	790	790	0%	21%
Total		1,210	3,766	4,976	100%	100%
Not Dispatchable		756	156	912	62%	4%
Dispatchable		454	3,610	4,064	38%	96%

To address the issue that fuel costs for some PPOAs now are in the FCA, Guidehouse moved \$66M of FCA costs in FYQ1 2022 and \$60M of FCA costs in FYQ4 2021 to the quarterly PPCA costs for purposes

of calculating cost allocation for marginal energy costs (per methodology proposed). A new table, Table 2-12 A shows the calculation of the revised FCA and PPCA rates.

**Table 2-12 A. Adjusted FCA and PPCA Rider Rates**

	<b>Cost</b>	<b>kWh</b>	<b>\$/kWh</b>
<b>FYQ4 2021 Rates</b>			
FCA	388,614,688	4,071,139,453	0.09546
PPCA	120,534,226	4,071,139,453	0.02961
Ecoelectrica FYQ4 2021 Costs in FCA	60,364,784	4,071,139,453	0.01483
Adjusted FCA	328,249,903	4,071,139,453	0.08063
Adjusted PPCA	180,899,010	4,071,139,453	0.04443
<b>FYQ1 2022 Rates</b>			
FCA	472,402,502	4,450,975,977	0.10613
PPCA	151,431,759	4,450,975,977	0.03402
Ecoelectrica FYQ1-2022 Costs	66,104,051	4,450,975,977	0.01485
Adjusted FCA	406,298,451	4,450,975,977	0.09128
Adjusted PPCA	217,535,810	4,450,975,977	0.04887

These adjustments result in new marginal cost rates as shown in Updated Table 2-12 below, which includes updates for both the allocation factors and the addition of FYQ1 2022 rates. The Marginal Energy cost is now \$0.07984 using 2017 rates and \$0.09397 using FY Q4 2021 rates. FY Q1 2022 rates are \$0.10585.

**Updated Table 2-12. Indicative FCA and PCCA Rider Costs and Rates**

	<b>PPOA Units</b>	<b>UOG Units</b>	<b>Total</b>
<b>2017 Rates</b>			
Rates (\$/kWh)	0.04748	0.06470	0.11218
Dispatchable Percentage	38%	96%	
Non-dispatchable Percentage	62%	4%	
Dispatchable Rates (\$/kWh)	0.01782	0.06202	0.07984
Non-Dispatchable Rates (\$/kWh)	0.02966	0.00268	0.03234
Check (\$/kWh)	0.04748	0.06470	0.11218
<b>FYQ4 2021 Rates</b>			
Rates	0.04443	0.08063	0.12506
Dispatchable Percentage	38%	96%	
Non-dispatchable Percentage	62%	4%	
Dispatchable Rates (\$/kWh) (\$/kWh)	0.01668	0.07729	0.09397
Non-Dispatchable Rates	0.02776	0.00334	0.03109
Check (\$/kWh)	0.04443	0.08063	0.12506
<b>FYQ1 2022 Rates</b>			

Rates (\$/kWh)	0.04887	0.09128		0.14016
Dispatchable Percentage	38%	96%		
Non-dispatchable Percentage	62%	4%		
Dispatchable Rates (\$/kWh)	0.01834	0.08750		0.10585
Non-Dispatchable Rates (\$/kWh)	0.03053	0.00378		0.03431
Check (\$/kWh)	0.04887	0.09128		0.14016

As stated above, Guidehouse notes that quarterly forecasted kWh data are available in the filing. Using kWh versus kW is possible but result in the need to adjust the allocations quarterly as well. Alternative Table 2-10 shows this adjusted calculation. As this shows, the percentage allocations to dispatchable changed slightly (UOG from 94% to 99% and PPOAs from 38% to 39%).

Alternative Table 2-10. Capacity Weighting of Generation Plants						
Type	Dispatchable	PPOA Units	UOG Units	Total	PPOA Units	UOG Units
		MWh	MWh	MWh	(%)	(%)
Renewable (As Generated) Units	Not Dispatchable	130,060	18,575	152,861	3%	1%
Baseload Units	Not Dispatchable	2,711,591	0	2,711,591	58%	0%
Thermal Units	Dispatchable	1,799,968	3,235,866	6,026,325	39%	99%
Peaking Units	Dispatchable	0	0	0	0%	0%
Total		4,641,620	3,254,441	8,890,777	100%	100%
Not Dispatchable		2,841,652	18,575	2,864,452	61%	1%
Dispatchable		1,799,968	3,235,866	6,026,325	39%	99%

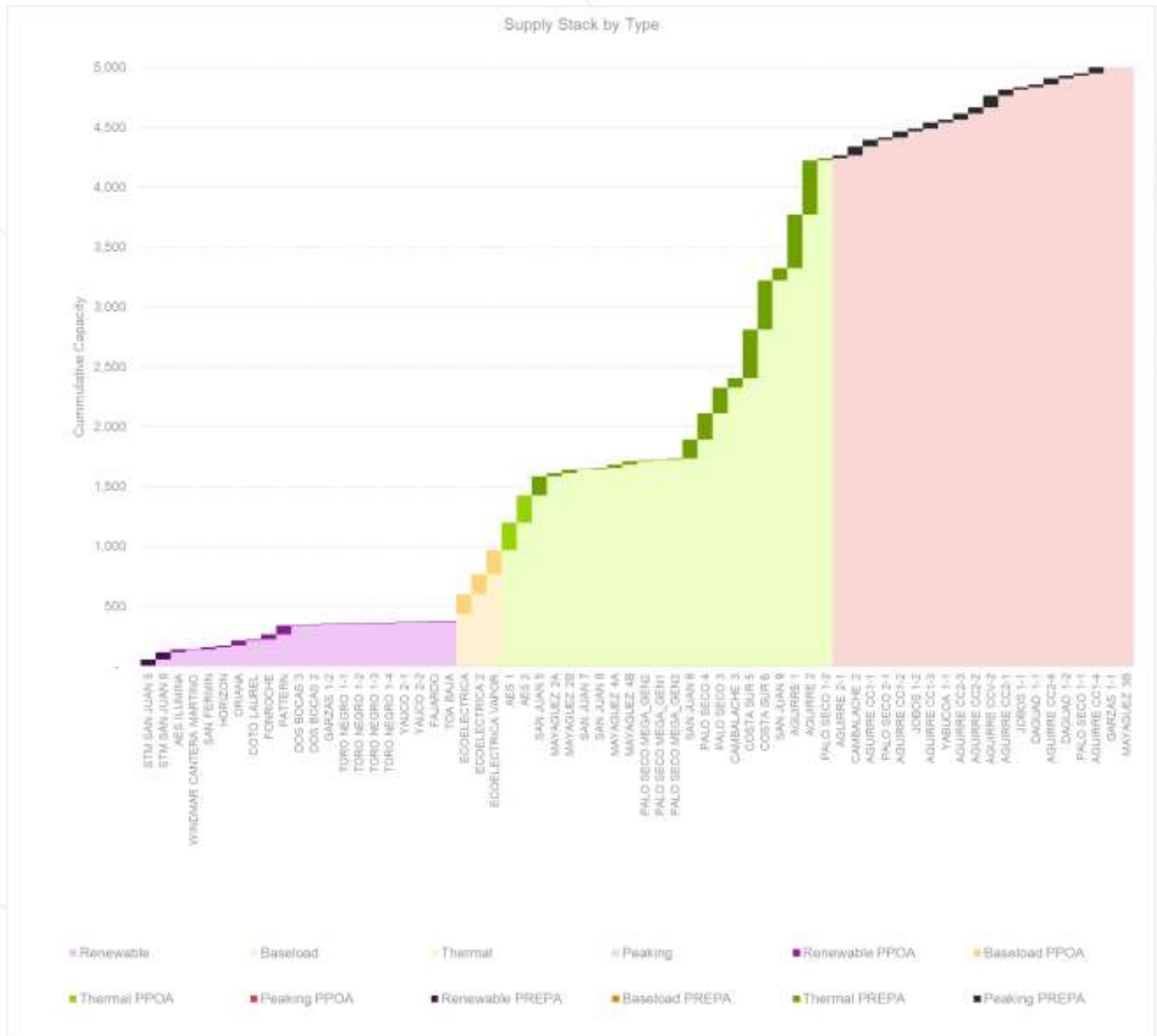
Alternative Table 2-12 shows the impact of these adjustments on marginal costs.

<b>Alternative Table 2-12. Current FCA and PCCA Rider Costs and Rates</b>			
<b>2017 Rates</b>	<b>PPOA Units</b>	<b>UOG Units</b>	<b>Total</b>
Rates	0.04748	0.06470	0.11218
Dispatchable Percentage	39%	99%	
Non-dispatchable Percentage	61%	1%	
Dispatchable Rates	0.01841	0.06433	0.08274
Non-Dispatchable Rates	0.02907	0.00037	0.02944
Check	0.04748	0.06470	0.11218
<b>FYQ4 2021 Rates</b>			
Rates	0.04443	0.08063	0.12506
Dispatchable Percentage	39%	99%	
Non-dispatchable Percentage	61%	1%	
Dispatchable Rates	0.01723	0.08017	0.09740
Non-Dispatchable Rates	0.02720	0.00046	0.02766
Check	0.04443	0.08063	0.12506
<b>FYQ1 2022 Rates</b>			
Rates	0.04887	0.09128	0.14016
Dispatchable Percentage	39%	99%	
Non-dispatchable Percentage	61%	1%	
Dispatchable Rates	0.01895	0.09076	0.10971
Non-Dispatchable Rates	0.02992	0.00052	0.03044
Check	0.04887	0.09128	0.14016

Using kWh vs kW to allocate results in slight changes (under half a penny) in the Marginal Energy Cost, equating to \$0.08274 versus \$0.07984 using 2017 rates, \$0.09740 versus \$0.09397 using FY Q4 2021 rates, and \$0.10971 versus \$0.10585 for FY Q1 2022.



REVISED FIGURE 2-4: Supply Stack by Type



## **Response: AP-2018-0004-PREB-LUMA-ROI-SET04-2021-06-28-17**

### **REQUEST**

Please provide PREPA's hourly system load for each hour from January 2019 to the present.

### **RESPONDER**

Margot Everett, Director - Guidehouse

### **RESPONSE**

Hourly system data from January 2019 are provided in the revised workpapers attached to this response (see tab IN\_Hourly System Load).

***Exhibit 2***  
*Revised Tables E-1, E-2 and E-3 of 2021 Cost Service Study*

**Table E-1. Marginal Costs**

	<b>Generation Capacity</b>	<b>Energy</b>	<b>Transmission Capacity</b>	<b>Distribution Capacity</b>	<b>Other*</b>
	(\$/kW)	(\$/kWh)	(\$/kW)	(\$/kW)	(\$/kW)
Marginal Cost	0	0.07984	0	0	0

\* Buildings, IT and Environmental

**Table E-2. Cost-Reflective Rates**

	<b>Generation Capacity</b>	<b>Energy*</b>	<b>Transmission Capacity</b>	<b>Distribution Capacity</b>
	(\$/kW of CP)	(\$/kWh)	(\$/kW of CP)	(\$/kW of NCP)
Marginal Cost Rate	0	0.07984	0	0
Residual Rate	206.46	0.03234	96.26	207.06

\*Based on 2017 rates

**Table E-3. Marginal Costs by Scenario**

	<b>Generation Capacity</b>	<b>Energy</b>	<b>Transmission Capacity</b>	<b>Distribution Capacity</b>	<b>Other</b>
	(\$/kW of CP)	(\$/kWh)	(\$/kW of CP)	(\$/kW)	(\$/kW)
Base Load	0	0.07984	0	0	0
Recovery Load	0	0.07984	0	0	0
Growth Load	0	0.07984	0	0	0
Base ROI	0	0.07984	0	0	0
Low ROI	0	0.07984	0	0	0
High ROI	0	0.07984	0	0	0