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

IN RE: THE PERFORMANCE OF THE PUERTO RICO ELECTRIC POWER AUTHORITY	**CASE NO.:** NEPR-MI-2019-0007 **SUBJECT:** Analysis of Performance Metrics for the Quarter of June to August 2021.

RESOLUTION AND ORDER

On May 14, 2019, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order ("May 14 Resolution") through which it initiated a proceeding to establish the quarterly reporting of performance metrics for the operation of the electric system under the instant docket. Since then, the Energy Bureau has received quarterly metrics' data reported by the Puerto Rico Electric Power Authority ("PREPA") regarding its performance.

On June 21, 2021, LUMA Energy, LLC as Management Co., and LUMA Energy Servco, LLC (collectively, "LUMA") submitted the quarterly report for the months of March, April, and May 2021 on performance metrics based on data collected prior to the Service Commencement that occurred on June 1, 2021 ("Service Commencement").

On July 6, 2021, LUMA filed a supplemental submission ("July 6 Supplemental Submission") for the Energy Bureau to consider the deferment of several financial metrics for the month of May 2021 due to the need to reconcile certain data.[1] These metrics included: Capital expenses vs. budget (System), Capital expense vs. budget (Transmission and Distribution), Capital expenses vs. budget (Generation), Capital expenses vs. budget (Customer Service), Capital expenses vs. budget (Exec), Capital expenses vs. budget (Planning and Environmental Protection), and Accounts Payable days outstanding.

As part of the July 6 Supplemental Submission, LUMA also informed the Energy Bureau that it had not been able to collect and review data of fleet operations due to the unavailability of maintenance records and difficulties with the work order system.

On August 13, 2021, LUMA filed an updated submission ("August 13 Updated Submission") to inform the Energy Bureau of clarifications to new performance metrics identified by the Energy Bureau.[2] In the August 13 Updated Submission, LUMA expressed it believed the methodology that PREPA used to calculate technical losses as percent of net generation and technical loss reduction as percent of net generation not to be wholly reliable. In addition, LUMA also informed the Energy Bureau that LUMA discovered that PREPA had limited the number of lines available to handle call center complaints.

On September 20, 2021, LUMA filed the first quarterly performance metrics collected by LUMA after the Service Commencement ("September 20 Filing").

In the September 20 Filing, LUMA requested the Energy Bureau to defer the July and August data of the following financial metrics: Operational expenses vs. budget (excluding fuel)(System), Operational expenses vs. budget (excluding fuel)(by directorate), Capital expenses vs. budget (System), Capital expense vs. budget (Transmission and Distribution), Capital expenses vs. budget (Generation), Capital expenses vs. budget (Customer Service), Capital expenses vs. budget (Exec), Capital expenses vs. budget (Planning and Environmental

[1] Motion Supplementing Quarterly Performance Metric Report and Requesting Leave to Defer Reporting of Specific Metrics, *In Re:* The Performance of the Puerto Rico Electric Power Authority, Case No. NEPR-MI-2019-0007, July 6, 2021.

[2] Motion in Compliance with Order Submitting Updated Quarterly Performance Metrics Report, *In Re:* The Performance of the Puerto Rico Electric Power Authority, Case No. NEPR-MI-2019-0007, August 13, 2021.

Protection), Cost of generation by customer (for the month of August 2021), Timely submission of the Monthly Operating Report, and Accounts payable days outstanding.

As part of the September 20 Filing, LUMA requested that the following metrics be excluded in future quarterly reports:

- Monthly Peak by Customer Class
- Monthly Peak by District
- Number of customer complaints appealed by customer class
- Average time to resolve billing disputes
- Average time to respond to service and outage complaints
- Incremental installed distributed generation capacity per year (wind)
- Incremental number of distributed generation installations per year (wind)

On October 15, 2021, the Energy Bureau issued a Resolution and Order ("October 15 Order") identifying issues to be the subject of a Technical Conference with LUMA and PREPA. These issues included, but were not limited to:

- LUMA's reporting of System Average Interruption Duration Index ("SAIDI") versus PREPA's historical reporting of SAIDI including, but not limited to outage causes categories;
- LUMA's reporting of System Average Interruption Frequency Index ("SAIFI") versus PREPA's historical reporting of SAIFI including, but not limited to outage causes categories;
- LUMA's reporting of increased forced outage percentages across specific plants including, but not limited to San Juan-steam, Palo Seco-steam, Aguirre-combined cycle, and Mayagüez;
- LUMA's reporting of decreased availability percentages across specific plants; and
- LUMA's reporting of decreased purchased energy from Power Purchasing Operating Agreements from AES and EcoEléctrica.

On November 4, 2021, the Energy Bureau held a Technical Conference to discuss the metrics identified in the October 15 Order.[3] During the Technical Conference, the Energy Bureau published a presentation identifying 29 metrics to be discussed and provided time to discuss the financial metrics that LUMA proposed for deferment and the metrics LUMA proposed to exclude.[4] The Technical Conference specifically focused on metrics where the Energy Bureau had observed shifts or unexplained changes between PREPA's and LUMA's reported metrics. The goal of the Technical Conference was to understand the changes in the identified metrics and to address questions about specific metrics raised by LUMA resulting from the transition in operations from PREPA.

On November 8, 2021, PREPA provided an updated explanation and supporting detail regarding questions associated with the cost of generation metric reported by LUMA for the three months ending August 31, 2021.[5] In addition, PREPA provided updated vehicle numbers associated with the Fleet vehicle metric in response to questions regarding the observed change in vehicle numbers reported by LUMA.

[3] The Technical Conference recording is available on the Energy Bureau's YouTube channel: https://www.youtube.com/watch?v=SuBYMn2xpeU. Visited December 14, 2021.

[4] Available at: https://energia.pr.gov/wp-content/uploads/sites/7/2021/11/Technical-Conference-Slides_11_4_2021.pdf. Visited December 2, 2021.

[5] Motion in Compliance with Bench Order Entered on November 4, 2021, *In Re:* The Performance of the Puerto Rico Electric Power Authority, Case No. NEPR-MI-2019-0007, November 8, 2021.

On November 9, 2021, LUMA provided responses to bench requests and restated metrics based on discussions during the Technical Conference ("November 9 LUMA Response").[6] LUMA restated values for SAIDI and SAIFI differentiated by distribution and transmission.[7] LUMA did not indicate if the metrics labeled distribution also included transmission. The combined distribution and transmission level metrics represent system-wide reliability. LUMA also provided restated values for customer average interruption duration index ("CAIDI").[8] According to LUMA, the restated values include outage classifications that had previously been excluded by PREPA.[9] LUMA also provided restated SAIDI and SAIFI values by district.[10]

The November 9 LUMA Response, that included updated metrics, omitted the following metrics:[11]

- Total installed energy storage capacity by type (system and per district);
- Incremental installed energy storage capacity per year by type (system and per district);
- Total number of energy storage installations by type (system and per district); and
- Incremental number of energy storage installations by type (system and per district).

In the November 9 LUMA Response, LUMA indicated that absenteeism for the months of June and July were calculated based on the number of employees and hours as of August 31, 2021. This methodology is inconsistent with the accepted methodology for the calculation of absenteeism. LUMA noted that it would calculate absenteeism based on the number of employees at the end of the pay period rather than the end of the three-month reporting period.

During the Technical Conference, LUMA reported the following factors contributing to the increase in the reported metrics, and steps implemented by LUMA to address employee safety. First, the LUMA Presentation indicated that LUMA has changed incidence classifications to remove the *casi casi* code for near-misses that PREPA had previously implemented.[12] In addition, Mr. Don Cortez indicated that LUMA has implemented the following processes to address employee safety:

- Additional safety training for crews
- Unannounced safety audits
- Safety discussions prior to job site and job work

During the Technical Conference, LUMA witness Mr. Mario Hurtado indicated that several factors contributed to the bookkeeping issues experienced by LUMA including, a backlog of

[6] Motion in Compliance with Requests Issued in Technical Conference of November 4, 2021 (Amended version), *In Re.* The Performance of the Puerto Rico Electric Power Authority, Case No. NEPR-MI-2019-0007, November 9, 2021 ("November 9 LUMA Response").

[7] November 9 LUMA Response, TC-RFI-LUMA-MI_19-0007-211104-PREB-002.

[8] *Id.*

[9] *Id.*

[10] November 9 LUMA Response, TC-RFI-LUMA-MI-19-0007-211104-PREB-002_Exhibit 1.xlsx.

[11] November 9 LUMA Response, TC-RFI-LUMA-MI-19-0007-211104-PREB-002_Exhibit 1, (For these metrics LUMA included a comment that stated "propose exclusion").

[12] LUMA. NEPR MI 2019-0007 Performance Metric Technical Conference. November 4, 2021. Slide 4.

6,080 invoices that became LUMA's responsibility upon the Service Commencement.[13] Mr. Hurtado indicated that the bookkeeping processes would improve by the next reporting quarter. Mr. Mario Hurtado also noted that LUMA currently does not provide information regarding monthly peak by customer class and monthly peak by district.[14] Mr. Hurtado indicated that this information was not provided by LUMA because the necessary sensors are not installed on the feeders at the time.[15] Mr. Hurtado indicated that LUMA would be willing to have discussions about other methods to determine this information. .[16]

On the Cost of Generation metric, the Energy Bureau observed a dramatic increase in the reported operations and maintenance values between the September 20 Filing report and earlier reports. It appears that LUMA reported values as cents/kWh and PREPA had previously reported the values as $/MWh. The metric is recorded as $/kWh.

In the November 9 LUMA Response, LUMA also provided details regarding the methodology used by LUMA to report work order balances.[17] LUMA indicated that the current work order software system automatically creates duplicate work orders that results in an increase in work order balances for the same request and for call centers to record multiple requests for the same customer issue. LUMA also noted that the work order balance includes any open projects[18] and does not necessarily correspond to power and/or customer related work. LUMA indicated that it has undertaken a clean-up effort to remove duplicate work orders and to track outstanding items from December 2020 backwards. LUMA indicated that the clean-up effort resulted in an updated work order balance account of 119,898.[19]

Upon review of the information filed by PREPA and LUMA as well as the information obtained during the Technical Conference, the Energy Bureau made the following determinations:

i. Request for Exclusion of Metrics

Regarding LUMA's request to exclude metrics from the quarterly reports, the Energy Bureau **REMINDS** LUMA it had required PREPA to report on these metrics when the Energy Bureau issued its April 27, 2017 Resolution in Case CEPR-IN-2016-0002.[20] At that time, these metrics where identified by the Energy Bureau to provide useful information regarding operations and the overall system evolution of PREPA.

The Energy Bureau will continue to require the rest of the metrics since they would provide useful information of the operations of LUMA. However, the Energy Bureau recognizes that there are technical, market, and regulatory challenges of some specific metrics. For example, LUMA may not have current visibility to the exact capacity and quantity of energy storage devices. The Energy Bureau believes that this information would be helpful to LUMA as the System Operator and to fulfill the requirements of the Approved IRP.[21] The Energy Bureau

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[13] Technical Conference, *In Re:* The Performance of the Puerto Rico Electric Power Authority, NEPR-MI-2019-0007, Energy Bureau YouTube Channel. November 4, 2021. At 1:05:37. The Technical Conference recording is available on the Energy Bureau's YouTube channel: https://www.youtube.com/watch?v=SuBYMn2xpeU. Visited December 14, 2021.

[14] *Id.* At 3:41:34

[15] *Id.*

[16] *Id.*

[17] November 9 LUMA Response, TC-RFI-LUMA-MI-19-0007-211104-PREB-007.

[18] November 9 LUMA Response, TC-RFI-LUMA-MI-19-0007-211104-PREB-007

[19] *Id.*

[20] *See* Resolution, *In Re.* The Performance of the Puerto Rico Electric Power Authority, Case No. CEPR-IN-2016-0002, April 27, 2017.

[21] *See* Final Resolution and Order, *In Re.* Review of the Puerto Rico Electric Power Authority Integrated Resource Plan, Case No. CEPR-AP-2018-0001, August 24, 2020 ("Approved IRP").

is also interested to know if LUMA has information that would supplement the Energy Bureau's identified metrics.

Notwithstanding the foregoing, the Energy Bureau **ACKNOWLEDGES** LUMA's request to exclude from the quarterly reports metrics pertaining to the incremental capacity and quantity of wind type distributed generation systems. The quantity and capacity of these type of systems is minimal and it is already included in the overall quantity and capacity of distributed generation systems interconnected to the distribution system. Nevertheless, said information shall still be collected and reported by LUMA. Until further notice it will be used by the Energy Bureau for statistical purposes.

The Energy Bureau **ORDERS** LUMA to provide, for the next quarterly metric filing, the necessary information required to be able to report the metrics LUMA requested to exclude. Furthermore, the Energy Bureau **ORDERS** LUMA to, **on or before January 7, 2022**, (i) identify if LUMA has alternate information that would supplement the Energy Bureau's metrics, while a plan to report the requested information proceeds; and (ii) a plan and timeline to report the requested information.

ii. Calculation of Absenteeism

The Energy Bureau **ACCEPTS** that LUMA's methodology for calculating absenteeism will be based on the number of employees at the end of the pay period rather than the end of the three-month reporting period.

iii. Restated SAIDI and SAIFI

The Energy Bureau **ACCEPTS** LUMA's restated SAIDI and SAIFI values that include outages that had been historically excluded. The Energy Bureau **ORDERS** LUMA to confirm in the next quarterly metrics filing if the reported distribution metric is limited to only distribution related outages and that the transmission metric is limited to only transmission related outages. Even with the restated SAIDI and SAIFI, LUMA's values for SAIDI and SAIFI, as reflected in Attachment A of this Resolution and Order[22], exceed the corresponding baseline. In other words, reliability was worse during the period corresponding to June, July and August 2021. During the Technical Conference, LUMA's Technical Presentation identified several extenuating circumstances that LUMA claims contributed to the increase in SAIDI values. These include:

- Out-of-date Outage Management System (OMS)
- Inclusion of outage codes previously excluded
- Backlog of outages
- Inadequate numbers of working vehicles
- Inadequate stores of spare breakers and reclosers
- Overgrown vegetation
- Declining asset health of system

LUMA identified the following initiatives to improve reliability:

- Initiating root cause analysis for outages
- Targeting replacement of 259 out-of-service circuit breakers. LUMA noted that many of the 259 breakers were non-functional and required replacement.
- Use of federal funds to initiate work on 94 projects across the Island[23]

[22] Attachment A to this Resolution and Order presents selected LUMA metrics that were updated by LUMA and PREPA in subsequent motions to the Energy Bureau and were included in the Energy Bureau's presentation. Attachment A includes the metric; the unit of measurement; the current baseline value; and June 2021, July 2021, and August 2021 values. Attachment B to this Resolution and Order presents the Updated LUMA District Annualized SAIDI and SAIFI Metrics for May through August per Supplemental Filings.

[23] LUMA. November 4, 2021. Slides 13 and 14.

iv. Work Order Balance

The Energy Bureau **ACCEPTS** LUMA's restated work order balance calculations provided to the Energy Bureau.

v. Financial Data

The Energy Bureau acknowledges that LUMA is making progress in its ability to close financial accounts on a timely basis. The Energy Bureau **FINDS** that LUMA has experienced delays in closing financial accounts that have impacted the reporting of numerous metrics. The Energy Bureau **WARNS** LUMA that further delays in reporting financial information will result in further investigations and/or administrative sanctions.

vi. Fleet Vehicles

The Energy Bureau **ACCEPTS** PREPA's updated values for fleet vehicles available. The Energy Bureau **ORDERS** PREPA to timely provide LUMA the fleet vehicle data for future quarterly metric filings. The Energy Bureau **ORDERS** LUMA to include in future dashboards the reported number of PREPA and LUMA vehicles. The number of fleet vehicles available for both entities will provide the overall fleet vehicles available to support the supply and delivery of electricity across the Island.

The Energy Bureau **REMINDS** LUMA that the performance metrics were established to monitor the operations and ensure that performance improves. While some metrics show an improvement, some of the metrics reported by LUMA, show a performance deterioration. The SAIDI values are an example of this. Even after the inclusion of data previously excluded by PREPA and the exclusion of events caused by generation issues the SAIDI values show a regress rather than an improvement. This is unacceptable.

The Energy Bureau acknowledges that under the fragile condition of the T&D system significant improvements are challenging. Nevertheless, a performance decline with values event below the baseline (*i.e.*, PREPA's historic) values is also unacceptable. Therefore, the Energy Bureau expects the next reports to at least show and maintain performance values **on or above the baseline**. Otherwise LUMA exposes itself to the imposition of administrative fines for noncompliance with its duty to improve the performance of the Transmission and Distribution System and other operations and/or tasks which LUMA assumed under the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement of June 22, 2020.[24]

The Energy Bureau **WARNS** PREPA and LUMA that noncompliance with the Energy Bureau's orders or applicable legal requirements may carry the imposition on administrative fines of up to twenty-five thousand dollars ($25,000.00) per day, per violation and/or other sanction that the Energy Bureau may deem appropriate.

Be it notified and published.

NEGOCIADO DE ENERGÍA DE PUERTO RICO
NEPR
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO

[24] Agreement executed between PREPA, LUMA and the Puerto Rico Public-Private Partnerships Authority.

Edison Avilés Deliz
Chairman

Angel R. Rivera de la Cruz
Associate Commissioner

Lillian Mateo Santos
Associate Commissioner

Ferdinand A. Ramos Soegaard
Associate Commissioner

Sylvia B. Ugarte Araujo
Associate Commissioner

CERTIFICATION

I certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on December 14, 2021. I also certify that on this date a copy of this Resolution and Order was notified by electronic mail to: margarita.mercado@us.dlapiper.com, jmarrero@diazvaz.law, kbolanos@diazvaz.law,. I also certify that today, December 14, 2021, I have filed the Resolution and Order issued by the Puerto Rico Energy Bureau.

I sign this in San Juan, Puerto Rico, today December 14, 2021.

Sonia Seda Gaztambide
Clerk

NEGOCIADO DE ENERGÍA DE PUERTO RICO
NEPR
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO

ATTACHMENT A

Updated LUMA Metrics for May through August per Supplemental Filings

Metric	Unit	Baseline Values	Benchmark Values	May	June	July	August
OSHA Incidence Rate	Rate	6.9	1.8 for generation + T&D 2.3 for T&D only	1.4	1.4	2.6	2.9
Absenteeism	Percentage	13.1%	2.4%	34.2%	1.1%	1.0%	1.9%
CAIDI	Minutes	145	101	153	168	179	181
Average Revenue per kWh Sold	$/kWh	$0.22	N/A	$0.20	$0.24	$0.21	$0.24
System Level Plant Availability	Percentage	51%	N/A	49%	55%	55%	51%
System Level Forced Outage Rate	Percentage	29%	N/A	17%	17%	23%	24%
Cost of System-wide Generation	$/kWh	$0.14	N/A	$0.13	$0.13	$0.14	$0.17
Purchased Energy from PPOAs	GWh	N/A	N/A	600	462	549	541
Average System Heat Rate	BTU/kWh	11,410	N/A	11,164	10,660	10,695	10,830
Monthly SAIDI	Minutes	N/A	N/A	110	223	174	135
Annual SAIDI	Minutes	1,243	102	1,222	1,340	1,397	1,378
Monthly SAIFI	Interruptions per customer	N/A	N/A	0.6	0.7	0.6	0.6
Annual SAIFI	Interruptions per customer	10.6	1.0	8.0	8.0	7.8	7.6
Work Order Balance	Number of work orders	274,821	N/A	346,216	354,188	368,621	382,288
Wait Time in Commercial Offices	Minutes	30:56	30:56	21:08	10:46	10:34	10:06
Customer Complaints per 100,000	Annual	841	7	798	718	662	623
Average Speed to Answer	Minutes	08:15	00:25	03:09	26:03	7:07	9:07
Number of customer calls answered	Number of calls	N/A	N/A	46,669	154,055	195,732	190,084
Percent of customer calls answered	Percentage	N/A	100%	27%	28%	58%	54%
Percent of Bills Estimated vs Read	Percentage	9%	5%	10%	14%	16%	11%
Percent of Customers Billed	Percentage	99%	100%	99%	98%	99%	96%
Cash Recovered on Theft	Million dollars	$0.92	N/A	$0.31	$0.14	$0.09	$0.08
NTL as Percent of Net Generation	Percentage	N/A	N/A	1.3%	1.5%	1.8%	2.1%
NTL Reduction as Percent of Net Generation	Percentage	N/A	N/A	-0.7%	0.3%	0.2%	0.3%
Total Available Vehicles in Service	Number of vehicles	2,709	N/A	-	936	1,063	1,484

Notes

Values incorporate updates provided by PREPA on November 8, 2021, and LUMA on November 9, 2021

CAIDI values calculated from annualized SAIDI and SAIFI values

ATTACHMENT B

Updated LUMA District Annualized SAIDI and SAIFI Metrics for May through August per Supplemental Filings

Metric	District	Unit	Fiscal Year 2020 Baseline	May	June	July	August
SAIDI (Overall System)	ARECIBO	Minutes	847	1,044	1,176	1,201	1,099
SAIDI (Overall System)	MANATÍ	Minutes	859	1,102	1,100	1,133	1,105
SAIDI (Overall System)	QUEBRADILLAS	Minutes	763	639	659	700	710
SAIDI (Overall System)	UTUADO	Minutes	3,352	2,205	2,731	2,905	2,671
SAIDI (Overall System)	BAYAMÓN	Minutes	693	767	793	869	825
SAIDI (Overall System)	COROZAL	Minutes	1,398	1,035	1,117	1,140	1,285
SAIDI (Overall System)	PALO SECO	Minutes	966	918	900	806	773
SAIDI (Overall System)	VEGA BAJA	Minutes	640	837	952	931	1,037
SAIDI (Overall System)	BARRANQUITAS	Minutes	1,790	1,558	1,525	1,502	1,405
SAIDI (Overall System)	CAGUAS	Minutes	1,208	1,447	1,570	1,639	1,568
SAIDI (Overall System)	CAYEY	Minutes	1,017	961	957	1,041	982
SAIDI (Overall System)	HUMACAO	Minutes	1,666	1,225	1,502	1,557	1,589
SAIDI (Overall System)	CANÓVANAS	Minutes	1,027	1,338	1,328	1,407	1,382
SAIDI (Overall System)	CAROLINA	Minutes	1,068	885	933	996	1,033
SAIDI (Overall System)	FAJARDO	Minutes	623	602	637	755	706
SAIDI (Overall System)	AGUADILLA	Minutes	1,885	2,214	2,328	2,537	2,509
SAIDI (Overall System)	MAYAGÜEZ	Minutes	2,272	2,047	2,228	2,409	2,248
SAIDI (Overall System)	SAN GERMÁN	Minutes	1,335	1,686	1,888	1,977	1,890
SAIDI (Overall System)	SAN SEBASTIÁN	Minutes	1,847	2,084	2,210	2,319	2,173
SAIDI (Overall System)	GUAYAMA	Minutes	888	670	795	835	964
SAIDI (Overall System)	PONCE	Minutes	1,205	1,265	1,374	1,403	1,383
SAIDI (Overall System)	SANTA ISABEL	Minutes	799	437	453	471	633
SAIDI (Overall System)	YAUCO	Minutes	1,382	1,568	1,770	1,756	1,697
SAIDI (Overall System)	GUAYNABO	Minutes	1,192	1,007	1,131	1,126	1,176
SAIDI (Overall System)	MONACILLOS	Minutes	1,402	1,423	1,813	1,899	1,964
SAIDI (Overall System)	RÍO PIEDRAS	Minutes	832	957	1,053	1,091	1,058

ATTACHMENT B

Updated LUMA District Annualized SAIDI and SAIFI Metrics for May through August per Supplemental Filings

Metric	District	Unit	Fiscal Year 2020 Baseline	May	June	July	August
SAIFI (Overall System)	ARECIBO	Interruptions per customer	6.6	8.6	8.9	8.6	8.5
SAIFI (Overall System)	MANATÍ	Interruptions per customer	7.8	7.6	6.9	6.1	5.4
SAIFI (Overall System)	QUEBRADILLAS	Interruptions per customer	5.9	5	4.7	4.5	4.4
SAIFI (Overall System)	UTUADO	Interruptions per customer	17	12.9	11.9	10.7	9.9
SAIFI (Overall System)	BAYAMÓN	Interruptions per customer	5.5	6	5.5	5.6	5.9
SAIFI (Overall System)	COROZAL	Interruptions per customer	14.5	9	8.6	7.8	8.3
SAIFI (Overall System)	PALO SECO	Interruptions per customer	8.2	8.8	7.7	6.5	6.1
SAIFI (Overall System)	VEGA BAJA	Interruptions per customer	5.7	8.3	8.8	8.2	8
SAIFI (Overall System)	BARRANQUITAS	Interruptions per customer	8.6	7	6.8	6.6	6.2
SAIFI (Overall System)	CAGUAS	Interruptions per customer	6	5.9	6.2	6	5.9
SAIFI (Overall System)	CAYEY	Interruptions per customer	6.2	4.2	3.7	4.2	3.9
SAIFI (Overall System)	HUMACAO	Interruptions per customer	9	7.8	8.5	8.5	8.4
SAIFI (Overall System)	CANÓVANAS	Interruptions per customer	7.5	10.8	10.5	10.2	9.6
SAIFI (Overall System)	CAROLINA	Interruptions per customer	8.1	7.2	6.8	6.7	7
SAIFI (Overall System)	FAJARDO	Interruptions per customer	4.7	4.9	4.9	5.6	5.2
SAIFI (Overall System)	AGUADILLA	Interruptions per customer	8.3	12.4	12.3	12.8	12.6
SAIFI (Overall System)	MAYAGÜEZ	Interruptions per customer	14.3	11.7	11.7	11.3	10.7
SAIFI (Overall System)	SAN GERMÁN	Interruptions per customer	9.6	10.7	10.3	10	9
SAIFI (Overall System)	SAN SEBASTIÁN	Interruptions per customer	12.1	12.9	11.8	12	11.8
SAIFI (Overall System)	GUAYAMA	Interruptions per customer	7.9	5.8	5.6	5.5	6.7
SAIFI (Overall System)	PONCE	Interruptions per customer	7.5	8.4	8.6	8.5	8
SAIFI (Overall System)	SANTA ISABEL	Interruptions per customer	7.3	4.8	4.7	4.5	4.9
SAIFI (Overall System)	YAUCO	Interruptions per customer	7	12.5	13.2	12.9	12.6
SAIFI (Overall System)	GUAYNABO	Interruptions per customer	8.5	5.2	5.7	5.8	6.1
SAIFI (Overall System)	MONACILLOS	Interruptions per customer	14.2	11.9	12.7	13.1	13.1
SAIFI (Overall System)	RÍO PIEDRAS	Interruptions per customer	6.5	6.3	6	6	5.7