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:** Response to LUMA's January 15 Motion, Response to Genera's February 3 and February 10 Motions, System Reliability Metric Reporting Frequency, and Additional System Reliability Metrics

RESOLUTION AND ORDER

I. Introduction

In this order, the Energy Bureau:

- Responds to LUMA's January 15 Motion in Compliance with the Resolution and Order of December 26, 2024;
- Responds to Genera's February 10 Motion in Compliance with the Resolution and Order of December 26, 2024 and orders Genera to submit additional details to comply with the Energy Bureau's directives;
- Requires Genera to revise its February 3 responses to the Energy Bureau's Requirements of Information ("ROIs") issued in the Resolution and Order of January 17, 2025;
- Orders LUMA to begin reporting select system reliability metrics monthly;
- Issues ROIs to LUMA and Genera regarding the Q2 FY2025 quarterly metrics submission; and
- Issues ROIs to LUMA regarding reliability metrics.

II. Procedural Background

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") in which it determined that it would be in the public interest to start the Puerto Rico Electric Power Authority's ("PREPA") data gathering process to help the Energy Bureau and the stakeholders in developing measures, metrics, and targets and to provide useful information for developing incentive and penalty mechanisms. The May 14 Resolution required PREPA to provide quarterly reports of key performance metrics and indicators, beginning September 15, 2019.

On May 21, 2021, the Energy Bureau issued a Resolution and Order ("May 21 Resolution") through which it established baselines and benchmarks for certain performance metrics.[1] The Energy Bureau ordered the Puerto Rico Electric Power Authority ("PREPA") and LUMA Energy, LLC as Management Co., and LUMA Energy ServCo, LLC (collectively, "LUMA") to submit the required quarterly reports using the Excel template ("data template") included as part of the May 21 Resolution.

On January 15, 2023, the Energy Bureau approved an operation and maintenance agreement with GENERA PR, LLC ("Genera")[2], and Genera took over operation of the legacy generation assets beginning on July 1, 2023. While PREPA still owns the assets, Genera became responsible for the performance of the units and reporting data in this docket beginning in fiscal year ("FY") 2024.

[1] *See* Resolution and Order, *In Re: The Performance of the Puerto Rico Electric Power Authority*, Case No. NEPRMI-2019-0007, May 21, 2021 ("May 21 Resolution").

[2] *See* NEPR-AP-2022-0001, January 15, 2023 Energy Compliance Certificate.

On April 3, 2023, the Energy Bureau issued a Resolution and Order to update the quarterly report data template in this docket.

On October 20, 2023, LUMA filed its *Submission of Performance Metrics Report for July through September 2023.* As part of its submission, LUMA provided a summary file containing its performance metrics data called "Resumen Metricas Master_October2023.xlsx" along with supporting data workbooks. This summary file also contained data submitted on behalf of Genera. This was the first quarter where Genera was responsible for reporting performance data.

On December 21, 2023, the Energy Bureau issued a Resolution and Order ("December 21 Resolution") that summarized the FY 2023 performance of LUMA and PREPA.

On January 19, 2024, the Energy Bureau issued a Resolution and Order ("January 19 Resolution") to update the quarterly report data template in this docket. LUMA and Genera were ordered to use this updated template going forward, starting with the October through December 2023 report.

On January 29, 2024, LUMA filed its *Submission of Performance Metrics Report for October through December 2023*. This included a motion, a workbook entitled "Copy of Resumen Metricas Master_January2024.xlsx", along with supporting data workbooks. The summary file also contained data submitted on behalf of Genera.

On January 29, 2024, Genera filed its *Motion to Submit Response to Requirement of Information in Compliance with Resolution and Order Dated December 21, 2023, and Quarterly Report of Performance Metrics* ("January 29 Motion"). In Exhibit 1, Genera confirmed in its response to ROI 16 of the December 21 Resolution that Genera is tracking the pollutants PM, SO_2, NO_x, CO_2, VOC, and Pb and could report these separately in this docket. In the summary file submitted by LUMA, Genera had left comments noting that NME expenses should be categorized as capital, rather than operational expenses in the workbook.

On April 22, 2024, LUMA filed its *Submission of Quarterly Report on System Data for January through March 2024* ("April 22 Motion"). This included a motion, a workbook entitled "Resumen Métricas Máster_April2024.xlsx", along with supporting data workbooks. The file used the template provided with the Energy Bureau's January 19 Resolution and included data provided to LUMA by Genera. LUMA's motion also renewed its earlier request to add the Toa Baja operational district to the reliability metrics, requested to modify the Days Sales Outstanding-Government ("DSO Government") metric to align with the methodology adopted in the NEPR-AP-2020-0025 proceeding ("Targets Proceeding"), and provided an update on the net work orders balance metric.

On July 10, 2024, the Energy Bureau issued a Resolution and Order ("July 10 Resolution") in which it approved several modifications to the quarterly report data template in response to LUMA's template modification requests in its January 29 and April 22 motions and Genera's response to ROI 16 of the Energy Bureau's December 21 Resolution. To maintain consistency in reporting within a fiscal year, rather than making modifications three-quarters of the way through the year, the Energy Bureau determined that it would make the modifications to the template to be used in the Q1 FY2025 report.

On October 18, 2024, the Energy Bureau issued a Resolution and Order ("October 18 Resolution") in which it directed LUMA to report data for all metrics approved for performance incentive in the Targets Proceeding and to align the quarterly reporting in this docket with the approved methodology from the Targets Proceeding. The Energy Bureau further instructed LUMA to identify any metrics reported in this docket that had relied on a different methodology than what was approved in the Targets Proceeding. The Energy Bureau issued a revised data template that added rows for new metrics, removed extraneous metrics that no longer needed to be reported, and included a methodology tab for LUMA and Genera to populate with information regarding their calculation methodology for each metric. Finally, the Energy Bureau extended the FY2025 Q1 reporting deadline to November 20, 2024.

On November 20, 2024, LUMA filed its *Submission of Quarterly Report Data for July through September 2024 and in Compliance with Order of October 18, 2024* ("November 20 Submission"). In this submission, LUMA filed a Quarterly Report using the revised data template in the October 18 Resolution. In its motion, LUMA explained the changes it made to align methodologies between this docket and the Targets Proceeding, provided explanations and expected reporting timelines for metrics where data was not available, stated that it had restated FY2024 historical values for several metrics[3] and requested that the Energy Bureau rename metrics in this proceeding to continue aligning with the Targets Proceeding.

LUMA began reporting data starting with July 2024 values for the following new metrics, which are all performance incentive metrics approved in the Targets Proceeding, but which were not previously being tracked in this docket: J.D. Power Customer Satisfaction Survey (Residential Customers), J.D. Power Customer Satisfaction Survey (Commercial Customers), Customer Complaint Rate, Capital expenses vs. budget – Federally Funded, Capital expenses *vs*. budget – Non-federally funded, Net Energy Metering (NEM) Project Activation Duration, Vegetation Maintenance Miles Completed. LUMA also began reporting reliability metrics for Toa Baja. LUMA notes that J.D. Power Residential results are available quarterly in March, June, September, and December, and J.D. Power Commercial Results are available bi-annually in July and November.

In the motion accompanying its November 20 Submission, LUMA stated that it was unable to provide data for the First Call Resolution (FCR), Customers Experiencing Multiple Interruptions (CEMI), and Momentary Average Interruption Frequency Index (MAIFI) metrics. LUMA estimated it could report FCR by the second quarter of FY2026 and that it will be able to report MAIFI and CEMI values in three to five years. Also, LUMA noted it will report the annual MAIFI and CEMI metrics on a fiscal year to date ("FYTD") basis once it is able to report on them.

On December 26, 2024, the Energy Bureau issued a Resolution and Order ("December 26 Resolution") in which it summarized the performance of LUMA and Genera over the 12-month period from July 2023 through June 2024 ("Fiscal Year 2024" or "FY24"). The Energy Bureau summarized the data in Attachment A, and ordered Genera and LUMA to file, on or before January 15, 2025, a motion explaining the cause underlying the lack of improvement for each metric designated as "Not Improved" in Tables 1 through 5 in Attachment A, except for those metrics already discussed in LUMA's August 30, 2024 motion titled *Motion Submitting Response to the Request for Information Issued in the Resolution and Order of August 9, 2024.* The Energy Bureau included several Requirements of Information in Attachment C and ordered LUMA to submit responses on or before January 15, 2025.

On January 14, 2025, Genera submitted a motion titled, *Request for Extension to Submit Response to Resolution and Order Issued on December 26, 2024* ("January 14 Motion"). Genera stated that certain metrics in Attachment A to the December 26 Resolution, along with the underlying assumptions or calculations, appear inconsistent with data that Genera has reviewed. Therefore, Genera requested the Energy Bureau: i) provide the original spreadsheet the Energy Bureau used so that Genera can understand and verify the calculations, ii) grant a meeting with the Energy Bureau's consultants to discuss any inconsistencies and to ensure Genera's filing is comprehensive and precise; and iii) grant an extension of time to submit responses of at least seven business days following discussions with the Energy Bureau's consultants.

On January 15, 2025, LUMA submitted a motion titled *Motion in Compliance with Resolution and Order of December 26, 2024* ("January 15 Motion"). In the Exhibit 1, LUMA submitted its responses to the ROIs issued in the December 26 Resolution, explanations for the lack of

[3] LUMA corrected a unit conversion error for the following metrics: Purchased Energy from thermal PPOA's-EcoElectrica, Purchased Energy from thermal PPOAs-AES and Purchased Energy from thermal PPOA's total. Additionally, LUMA restated values for SAIDI, SAIFI and CAIDI to reflect the outcome of its annual quality revision.

improvement in each metric designated by the Energy Bureau, and LUMA's plan for improvement over Fiscal Year 2025.

On January 17, 2025, the Energy Bureau issued a Resolution and Order ("January 17 Resolution") in which it issued a new data template to be used starting with the FY2025 Q3 submission. The new data template contains updated names for metrics whose methodology changed, per LUMA's request to rename certain metrics in its motion accompanying its November 24 submission. The Energy Bureau requested LUMA and Genera provide with the FY2025 Q3 submission any additional recommended changes to the data template that would increase clarity or reduce confusion. The Energy Bureau also ordered LUMA to provide in FY2025 Q3 submission historical data for the new metrics or metrics for which LUMA has changed the methodology, dating back to when LUMA began operations. Additionally, the Energy Bureau issued several ROIs. Finally, the Energy Bureau granted Genera's request for an extension of time to submit its response to December 26 Resolution and ordered Genera to submit its response within seven (7) business days following a meeting with the Energy Bureau's consultants.

On January 21, 2025, LUMA submitted a motion titled *Submission of Quarterly Report on System Data for October through December 2024* ("January 21 Submission"). In this submission, LUMA filed a Quarterly Report using the revised data template in the October 18 Resolution. In its motion, LUMA stated it restated the values for the "Technical losses as a % of net generation" metric from July 2021 onward

On January 30, 2025, Genera met with the Energy Bureau's consultants to discuss any inconsistencies and clarify confusion related to the December 26 Resolution.

On February 3, 2025, LUMA filed a Motion titled *Motion in Compliance with Resolution and Order of January 17, 2025* ("LUMA's February 3 Motion") in which it submitted its responses to the ROIs issued in the January 17 Resolution.

On February 3, 2025 Genera submitted a motion titled *Motion to Submit Response to Request of Information dated January 17, 2025* (Genera's February 3 Motion"). Genera submitted its responses to the ROIs issued in the January 17 Resolution and an updated Quarterly Report for FY2025 Q2.

On February 10, 2025, Genera submitted a motion titled *Motion to Submit Response to Resolution and Order dated December 26, 2024* ("February 10 Motion"). Genera made several clarifications regarding the capital expenses vs budget metrics. Genera also highlighted that the calculation of Average Heat Rate should exclude months when the unit was offline and the reported heat rate value is zero. Finally, Genera notes that Plant Availability is only useful for addressing performance when the unit is online and that the Equivalent Availability Factor("EAF") metric offers a more comprehensive and realistic assessment of plant reliability and operational efficiency.

On April 21, 2025, LUMA submitted a motion titled *Motion Submitting Quarterly Report on System Data for January through March 2025* ("April 21 Submission"). In this submission, LUMA filed a Quarterly Report on System Data for January through March 2025 based on the revised data template in the January 17 Resolution. In its filing, LUMA provided historical data for metrics for which LUMA modified the methodology, consistent with the Energy Bureau's directives in the January 17 Resolution.

On April 25, 2025, Genera submitted a motion titled *Motion to Submit Quarterly Performance Metrics Report for the Third Quarter of Fiscal Year 2025* ("April 25 Motion"). Genera stated that at the time of the April 21 Submission, information for some metrics in the Finance and Environmental categories was not available, thus causing a partial report to be submitted. Genera included as Exhibit A its updated Performance Metrics Report for Q3 FY2025 (Genera April 25 Submission").

III. Discussion

A. LUMA's January 15 Motion in Compliance with Resolution and Order of December 26, 2024

In response to the Energy Bureau's December 26 Resolution, in its January 15 Motion LUMA provided explanations for the lack of improvement for metrics identified by the Energy Bureau has not improved over the period from July 2023 to June 2024. LUMA also described its plans for improvement over the next fiscal year for this set of metrics. For some metrics, LUMA disagreed with the Energy Bureau's determination of non-improvement. These are discussed below.

- **Operational expenses vs. budget.** LUMA states that a monthly average is not an accurate representation of actual performance. LUMA claims that its FY24 operational expenses vs. budget were 99.9% and that it is in compliance with the approved budget. The Energy Bureau recognizes that a monthly average approach may not be the most applicable for this metric. LUMA is now reporting its operational expenses vs. budget metrics on a fiscal year-to-date basis, and in its April 20 Submission, re-reported its historical data to be consistent with this new methodology. In future years, the reported FYTD value for the final month of the fiscal year will be used as a point of comparison to capture the full annual performance.

- **Generation from RPS eligible PPOA's**. LUMA states that this metric does not reflect LUMA's performance and therefore disagrees with the Energy Bureau's determination of non-improvement for this metric. The Energy Bureau recognizes that LUMA is not directly responsible for the procurement of renewable resources; however, LUMA plays an important role and is expected to actively support the achievement of renewable energy goals (e.g., through ensuring timely interconnection of new RPS-eligible resources).

B. Genera's February 3 and February 10 Motions

Genera's February 3 Motion

On February 3, 2025, Genera submitted its responses to the Energy Bureau's Requirements of Information in the January 17 Resolution. The Energy Bureau reviewed Genera's responses and determined that Genera did not sufficiently answer several of the Energy Bureau's questions. Genera provided insufficient detail on the following topics:

- **Operational expenses vs. budget and Capital Expenses vs budget calculation methodology**. Genera confirmed that the submitted values reflect a fiscal year-to-date calculation.[4] However, the Energy Bureau notes that Genera's monthly values seem inconsistent with a fiscal year-to-date calculation. For example, for the "Operational expenses vs. budget (system)" metric, Genera reports values of 91%, 86%, and 98% in July, August, and September 2024, respectively.[5] This is inconsistent with a fiscal-year-to-date calculation for two reasons. First, the Energy Bureau would expect to see this metric increase over time as more expenses are incurred over the course of the year. However, Genera is reporting declining percentages which imply a decrease in cumulative expenses over the course of the year. Second, July is the first month of the fiscal year. Therefore, reported spending of 91% of the annual budget in the first month raises questions about the validity of the calculation methodology.

[4] See response GPR-PREB-NEPRMI20190007-20250117 #1(a).

- The Energy Bureau **REQUIRES** Genera to file a revised response explaining the way in which it calculates its finance metrics, and to provide any accompanying workpapers, with formulas intact, necessary to support its response. The Energy Bureau interprets fiscal-year-to-date calculation to mean actual expenditures divided by the approved expenditures for a fiscal year, reported as a fiscal-year-to-date value.[6] In its revised response, Genera should explicitly state whether it is calculating its budget metrics consistent with the Energy Bureau's interpretation, or if not, explain why not. Additionally, in its response to the Energy Bureau's question asking whether the calculation methodology for these metrics are consistent with the T&D operational expenses vs budget and capital expenses vs budget metrics, Genera referenced its responses confirming that the methodology is consistent with the Genco methodology tab and the LGA OMA.[7] The Energy Bureau notes that this is not responsive to its question.

- **Plant availability (system) calculation methodology**. The Energy Bureau asked Genera to explain the difference between the current plant availability metric and Genera's preferred EAF metric. Genera provided broad statements about the appropriate use of the plant availability metrics versus EAF but did not adequately respond to the question of the difference in the calculation methodologies.[8] The Energy Bureau **REQUIRES** Genera to file a revised response to the question that appropriately addresses the question of the methodological differences. Genera's revised response should explain in detail how it calculates plant availability factor and how it calculates EAF, and how these differ.

- **OSHA metrics.** The Energy Bureau asked Genera if its calculation methodologies for OSHA metrics are consistent with LUMA's calculation methodologies for the same metrics for the transmission and distribution ("T&D") system. Genera stated it follows OSHA guidelines, but did not respond to the question of whether its methodologies are consistent with LUMA's methodologies. The Energy Bureau **REQUIRES** Genera to file a revised response that appropriately addresses the consistency of its methodology with LUMA's methodology for the T&D OSHA metrics. If necessary, Genera should coordinate with LUMA to ensure its response is accurate.

Genera's February 10 Motion

In the December 26 Resolution, the Energy Bureau ordered Genera to file a motion explaining the lack of improvement for any metric designated as "Not Improved". Genera submitted its Response to the December 26 Resolution in its February 10 Motion.

Genera's February 10 Motion included more context about the finance, average heat rate, and plant availability metrics.

- **Finance.** Regarding Genera's expenses versus budget metrics, Genera clarified that there is no data for federally funded projects because Genera has no budget for these expenses. Genera clarified that the non-federally funded metric is the same as the Necessary Maintenance Expense (NME) row.

- **Average Heat Rate.** Genera noted that because it populated some heat rate metrics with a value of zero for certain months when generators were offline, the annual average of the monthly heat rate values is distorted and misleading. The Energy Bureau agrees with this conclusion. To prevent this distortion in the future, the Energy Bureau **REQUIRES** that Genera be more precise about the use of zeroes when

[6] See "Methodology" tab of the Resumen Metricas file provided by LUMA in the January 21 Submission.

[7] See response GPR-PREB-NEPRMI20190007-20250117 #1(b).

[8] See response GPR-PREB-NEPRMI20190007-20250117 #2.

a blank or N/A value may be more appropriate. The Energy Bureau has updated the heat rate calculations and provides the updated values in *Attachment B* to this Resolution and Order.

- **Plant Availability.** Genera commented that the plant availability metric should only be calculated for months when the units were online. Genera states that the EAF metric EAF is more effective for evaluating overall plant performance.

While Genera's February 10 Motion provided the above information on finance, heat rate, and plant availability metrics, the Energy Bureau finds that Genera failed to fully meet the requirements of the December 26 Resolution. The Energy Bureau ordered Genera to file a motion explaining the causes of lack of improvement for any metric with performance designated as "Not Improved" along with Genera's plans for improvement over the next Fiscal Year. Genera did not provide explanations for the lack of improvement nor its plans for improvement for metrics with performance was designated as "Not Improved". These include:

- Forced outages (by plant)
- Average heat rate (by plant)
- Plant availability (by plant and system)
- MMBTU consumed
- Average fuel price vs. forecast price
- Fleet out of service

In general, the Energy Bureau finds that Genera's February 3 and February 10 Motions were incomplete. The Energy Bureau **WARNS** Genera that its future filings must be more responsive to requirements of its Resolutions and Orders and **REMINDS** Genera that per Act No. 57-2014[9], as amended, the Energy Bureau has the authority to impose fines or administrative sanctions for noncompliance with the Energy Bureau's Resolution and Orders.

C. Reliability Metrics

To improve data availability and transparency around system reliability, the Energy Bureau requires that LUMA provide reliability data at more frequent intervals, and that LUMA report an expanded set of reliability metrics. These requirements are discussed more below.

a) Reporting Frequency

LUMA currently reports System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) at the system and reliability district sub-level. SAIDI measures the number of minutes of outages an average system customer experiences in a given period, while SAIFI measures the frequency of outages in a given time period.

LUMA's reliability data is made public on the Puerto Rico Electric Power and Renewable Energy (PREPARE) Dashboard after each quarterly filing.[10] However, this filing schedule results in data that lags by several months. The Energy Bureau is aware that preparing the quarterly metrics reports requires a significant amount of resources and effort by LUMA. Nonetheless, reliability is of particular importance to stakeholders and the public and having more current reliability data would provide significant value to stakeholders.

Therefore, to balance the value of improved data availability with the additional burden of reporting, the Energy Bureau requires LUMA to begin reporting system reliability metrics

[9] Known as *Puerto Rico Energy Transformation and RELIEF Act*, as amended ("Act 57-2014")

[10] Available at: https://dashboard.energia.pr.gov/ (visited May 14, 2025).

monthly. LUMA may provide preliminary values for these metrics and may revise prior months' data in future submissions as needed. The metrics that LUMA shall begin reporting monthly include:

- System SAIDI (T&D FYTD)
- System Monthly SAIDI (T&D)
- System SAIFI (T&D FYTD)
- System Monthly SAIFI (T&D)

The Energy Bureau **ORDERS** LUMA to begin reporting the above metrics monthly. LUMA **SHALL** file reports with data for the prior month on or before the 20th day of the following month (e.g., LUMA must file May data by the 20th day of June). LUMA should use the most current reporting template issued by the Bureau. LUMA should leave blank any cells for metrics not being reported monthly.

b) Additional Reliability Metrics

The Energy Bureau understands that LUMA calculates SAIDI and SAIFI in accordance with IEEE 1366-2012 and excludes interruptions classified as Major Event Days (MEDs), planned interruptions, and interruptions caused by generation events.[11] Therefore, while the SAIDI and SAIFI values that LUMA reports accurately capture the duration and frequency of outages that are reasonably within LUMA's control, they do not reflect the system reliability that customers experience.

Outages caused due to generation shortfall or unit performance load shed events are not reflected in the reliability metrics LUMA currently reports. LUMA publishes monthly generation performance reports on their website. In calendar year 2024, LUMA reported 35 generation shortfall events lasting an average of 192 minutes and 82 unit performance load shed events lasting an average of 29 minutes.[12] These outage events are not reflected in the SAIDI and SAIFI metrics that LUMA reports in this proceeding but are experienced by customers. Therefore, to increase transparency around the actual system reliability customers are experiencing, the Energy Bureau **INTENDS** to add several system-level reliability metrics to the reporting template:

- **Unit generation shortfall load shed events**. This will be measured as the number of events.

- **Unit performance load shed events**. This will be measured as the number of events.

- **System SAIDI Generation**. This measures the total duration of interruption resulting from all generation-related load shed events for the average customer over a defined period. It is calculated as the sum of total customer minutes of interruptions due to all generation load shed events divided by the total customers served.

- **System SAIFI Generation.** This measures how frequently the average customer experiences an interruption due to all generation-related load shed events over a defined period. It is calculated as the sum of the total number of customer interruptions due to all generation load-shed events divided by the total number of customers served.

- **Total System SAIDI**. This measures the average duration of interruptions due to T&D and generation-related outages. It will be calculated as the sum of total customer

[11] Annex IX of Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement.

[12] LUMA. *Monthly Generation Performance Report December 2024*. 27 Jan. 2025, Available at: https://lumapr.com/wp-content/uploads/2025/01/2024.12_Generation-Performance-Report.pdf (visited May 14, 2025).

minutes of interruptions due to all T&D and generation-related outages, including those classified as Major Event Days, divided by the total number of customers served.

- **Total System SAIFI**. This will measure the average frequency of interruptions due to T&D and generation-related outages. It will be calculated as the sum of total customer interruptions due to all T&D and generation-related outages, including those classified as Major Event Days, divided by the total number of customers served.

While LUMA is not directly responsible for maintenance and operation of generation assets, LUMA's responsibility as the System Operator includes measuring the performance of the generation fleet. Therefore, LUMA will be responsible for reporting information on generation-related outages going forward.

The Energy Bureau welcomes comments from LUMA and Genera regarding the additional system reliability metrics listed above. In particular, the Energy Bureau would welcome comments regarding the ease of providing both monthly and year-to-date metrics. LUMA and Genera should provide information relevant to the Energy Bureau in their responses to the ROIs included in *Attachment A* of this Resolution and Order.

IV. Conclusion

The Energy Bureau **ORDERS** LUMA and Genera to respond to the Requirements of Information included as *Attachment A* to this Resolution and Order within twenty (20) calendar days of the notification of this Resolution and Order.

The Energy Bureau **ORDERS** LUMA to begin reporting system-level SAIDI and SAIFI metrics listed in Section C. paragraph a) of this Resolution and Order monthly by the 20th day of the following month, starting in June 2025.

The Energy Bureau **ORDERS** Genera to file revised responses to certain ROIs issued in the January 17 Resolution, as specified in this Resolution and Order, within ten (10) calendar days of the notification of this Resolution and Order.

Be it notified and published.

Edison Avilés Deliz
Chairman

Lillian Mateo Santos
Associate Commissioner

Ferdinand A. Ramos Soegaard
Associate Commissioner

Antonio Torres Miranda
Associate Commissioner

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

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on May 16, 2025. Associate Commissioner Sylvia B. Ugarte Araujo did not intervene. I also certify that on May 16, 2025, a copy of this Resolution and Order was notified by electronic mail to jennalvarez@sbgblaw.com; margarita.mercado@us.dlapiper.com, Yahaira.delarosa@us.dlapiper.com; mvalle@gmlex.net; arivera@gmlex.net; jfr@sbgblaw.com, hrivera@jrsp.pr.gov, legal@genera-pr.com; regulatory@genera-pr.com and 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, on May 16, 2025.

Sonia Seda Gaztambide
Clerk

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

ATTACHMENT A
Requirements of Information (ROIs)

LUMA

1. The Energy Bureau understands that LUMA currently calculates SAIDI and SAIFI in accordance with IEEE 1366-2012 and excludes interruptions classified as Major Event Days, planned interruptions, and interruptions caused by generation events.[13] Please confirm.
2. What is the Major Event Day threshold (Tmed) that LUMA uses to calculate SAIDI and SAIFI metrics?
    a. How does LUMA calculate this threshold? What years of data does it use? Provide any supporting documentation and workpapers, with formulas intact, for the current threshold LUMA is using.
    b. Does LUMA calculate a different Tmed for each reliability district?
    c. How often does LUMA update the Tmed used to calculate reliability metrics?
3. How does LUMA define momentary versus sustained interruptions? Does LUMA include momentary interruptions in its SAIDI and SAIFI metric calculations?
4. Provide a list of outage cause codes that LUMA uses to categorize service interruptions, inclusive of generation related events. For each code, provide a description and state whether it is included in SAIDI and SAIFI metric calculations.
5. Please provide any additional information that would be relevant to the Energy Bureau related to the additional system-level reliability metrics the Energy Bureau intends to add to the reporting template.

Genera

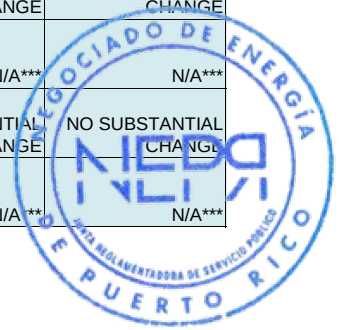
1. Refer to the Resumen Metricas file provided in the January 21 Submission. Genera reported OSHA Recordability Rate, OSHA Dart Rate, OSHA Severity Rate, and OSHA Fatality Rate as a percentage from July 2023 onwards but categorized these metrics as a rate under the "Unit of Measure" tab. Please explain if this is a unit error, if Genera meant to report these metrics as a rate or percentage, and how the reported values should be interpreted. For example, how should a value for OSHA Severity Rate of 0.55% be interpreted?
2. Refer to the Resumen Metricas file provided in the January 21 and April 25 Submission. Please confirm the value for Monthly thermal generation (by plant) for the Aguirre – Gas plant in December 2024 is correct.
3. Please provide any additional information that would be relevant to the Energy Bureau related to the additional system-level reliability metrics the Energy Bureau intends to add to the reporting template.
4. Provide the current methodology Genera is using to calculate the plant availability metric along with relevant workpapers with formulas intact.
   Refer to the Refer to the "GenCo Methodology" tab in the Resumen Metricas file provided in the January 21 and April 25 Submission. Explain if the Unplanned Downtime Hours in the formula for the Plant Availability metrics is the same as Forced Outage Hours in the formula for the Forced Outage metrics. Explain in detail what each category captures, and how they differ, if applicable.

[13] Annex IX of Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement.

Updated Performance for Heat Rate Metrics											
Metric Category	**Metric**	**Sub-Group**	**Unit of Measure**	**Performance improves if above or below**	***FY2020 Baseline***	***Proposed Benchmark***	***FY2022 Average***	***FY2023 Average***	***FY2024 Average***	***FY2024 Performance Relative to 2020 Baseline***	***FY2024 Relative to FY2023***
Generation	Average heat rate (by plant)	San Juan - Steam	BTU/kWh	Below	12,519	10,236	11,583	12,084	12,218	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Palo Seco - Steam	BTU/kWh	Below	11,411	10,236	10,943	11,067	11,097	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Costa Sur - Steam	BTU/kWh	Below	11,923	10,236	11,544	11,964	14,628	NOT IMPROVED	NOT IMPROVED
Generation	Average heat rate (by plant)	Aguirre - Steam	BTU/kWh	Below	10,986	10,236	11,307	11,627	12,039	NOT IMPROVED	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Ciclo Combinado San Juan	BTU/kWh	Below	8,870	9,662	8,959	9,096	8,718	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Ciclo Combinado - Aguirre	BTU/kWh	Below	13,838	9,662	14,574	14,371	14,276	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Mayagüez - Gas	BTU/kWh	Below	10,326	13,315	10,551	10,729	10,968	NOT IMPROVED	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Palo Seco - Gas	BTU/kWh	Below	13,995	13,315	15,719	13,561	15,832	NOT IMPROVED	NOT IMPROVED
Generation	Average heat rate (by plant)	Costa Sur - Gas	BTU/kWh	Below	N/A	13,315	N/A	19,105	N/A	N/A***	N/A***
Generation	Average heat rate (by plant)	Aguirre - Gas	BTU/kWh	Below	15,377	13,315	15,624	17,631	16,460	NOT IMPROVED	IMPROVED
Generation	Average heat rate (by plant)	Yabucoa - Gas	BTU/kWh	Below	14,780	13,315	15,892	15,626	15,892	NOT IMPROVED	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Daguao - Gas	BTU/kWh	Below	15,640	13,315	14,999	15,556	15,530	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Jobos - Gas	BTU/kWh	Below	15,080	13,315	15,043	15,354	15,156	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Vega Baja - Gas	BTU/kWh	N/A	18,279	13,315	16,213	N/A	N/A	N/A***	N/A***
Generation	Average heat rate (by plant)	Cambalache - Gas	BTU/kWh	Below	12,482	13,315	13,029	12,957	12,771	NO SUBSTANTIAL CHANGE	NO SUBSTANTIAL CHANGE
Generation	Average heat rate (by plant)	Vieques - Diesel	BTU/kWh	N/A	9,380	10,325	N/A	N/A	N/A	N/A***	N/A***

Note: improved means performance has improved by over 5 percent.
Not improved means that performance has not improved by over 5 percent.
No substantial change means performance has remained within 5 percent.

***No generation occurred, therefore an average heat rate can not be calculated.



Updated Performance for Heat Rate Metrics											
Metric Category	**Metric**	**Sub-Group**	**Unit of Measure**	**Performance improves if above or below**	***FY2020 Baseline***	***Proposed Benchmark***	***FY2022 Average***	***FY2023 Average***	***FY2024 Average***	***FY2024 Performance Relative to 2020 Baseline***	***FY2024 Relative to FY2023***
Generation	Average heat rate (by plant)	Culebra - Diesel	BTU/kWh	N/A	8,092	10,325	N/A	N/A	N/A	N/A***	N/A***

Note: improved means performance has improved by over 5 percent.
Not improved means that performance has not improved by over 5 percent.
No substantial change means performance has remained within 5 percent.

***No generation occurred, therefore an average heat rate can not be calculated.