NEPR

Received:

Oct 8, 2024

2:51 PM

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

IN RE: IN RE: PUERTO RICO ELECTRIC POWER AUTHORITY PERMANENT RATE **CASE NO. NEPR-MI-2020-0001**

SUBJECT: Motion in Compliance with Resolution and Order of October 1, 2024

MOTION IN COMPLIANCE WITH RESOLUTION AND ORDER OF OCTOBER 1, 2024

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"), through the undersigned counsel, and respectfully state and request the following:

1. On September 16, 2024, LUMA filed before the Puerto Rico Energy Bureau ("Energy Bureau") a *Motion Submitting Quarterly Reconciliations and FCA, PPCA, and FOS Calculated Factors and Request for Confidential Treatment* ("September 16th Submission"). LUMA submitted the quarterly reconciliations for the Fuel Charge Adjustment ("FCA") and Purchased Power Charge Adjustment ("PPCA") riders for June through August 2024, and the calculated proposed factors for the FCA, PPCA, and Fuel Oil Subsidy ("FOS") riders for the period from October 1 until December 31, 2024. As part of the filing, LUMA included Excel spreadsheets filed publicly and confidential Excel spreadsheets with formulae intact.

2. On September 24, 2024, the Energy Bureau entered a Resolution and Order in which it requested LUMA to provide or clarify certain information included in Attachments A and B concerning the September 16th Submission on or before September 26, 2024, at 4 p.m.

1

("September 24th Order"). The Energy Bureau issued a second request for information directed to Genera PR, LLC ("Genera") to be fulfilled by the same deadline.

3. On September 25, 2024, LUMA filed an *Urgent Informative Motion on Resolution and Order of September 24, 2024, and Partial Request for Extension to Submit Responses to Attachment B.* Therein, LUMA requested a brief extension until noon on September 27, 2024, to file its responses to the Energy Bureau's requests for information in Attachment B.

4. On that same day, September 25, 2025, the Energy Bureau issued a Resolution and Order granting LUMA until noon on September 27, 2024, to submit its responses to the requests for information included in Attachment B of the September 24th Order ("September 25th Order").

5. On September 26, 2024, LUMA filed a *Motion in Partial Compliance with Resolution and Order of September 24, 2024.* LUMA submitted its responses to the requests for information posed by the Energy Bureau Attachment A of the September 24th Order and supporting materials in the form of three (3) Excel files titled "*Peak Demand, Generation Resources, and Economic Dispatch Costs for June-August 2024.xlsx*", "*Forced Outages – RFI.xlsx*" and "*Forecast vs Actual Analysis – Fuel Jun-Jul-Aug 2024.xlsx*". Furthermore, LUMA included the factors workbook with the updates discussed in Exhibit A. LUMA noted that the updates did not affect the factor proposed in the September 16th Submission. *See October-December 2024 Proposed Factors Values.xlsx*.

6. Moreover, LUMA informed the Energy Bureau that since several requests for information in the Energy Bureau's September 24th Order related to information under the control or the responsibility of Genera, as operator of the Puerto Rico Electric Power Authority's ("PREPA") Thermal Generation Facilities, LUMA contacted Genera and requested that it respond to such information requests.

7. On September 26, 2024, Genera provided the information pertaining to the requests for information concerning PREPA's Thermal Generation Facilities. The information gathered by Genera answers the request for information 1.3, 1.4, 1.11, 1.13, and 1.14 of Attachment A of the September 24th Order.

8. Shortly after that, on September 26, 2024, LUMA filed a *Motion in Further Compliance with Resolution and Order of September 24, 2024*. LUMA submitted the outstanding responses provided by Genera to the requests for information posed by the Energy Bureau in Attachment A of the September 24th Order.

9. Thereafter, on September 27, 2024, LUMA filed a *Second Motion in Further Compliance with Resolution and Order of September 24, 2024*. LUMA submitted its responses to the requests for information in Attachment B of the September 24th Order and supporting materials in the form of an Excel spreadsheet titled "*Variance Analysis and Estimated Fuel Costs of Outgaes for June – August 2024.xlsx*"..

10. On that same day, September 27, 2024, Genera filed a *Motion to Submit Amended Responses to Request for Information Issued on September 24 2024*. Therein, Genera submitted amended responses to the requests for information 1.3 and 1.4 of Attachment A of the September 24th Order.

11. On September 30, 2024, this Energy Bureau entered a Resolution and Order maintaining the previous quarter's FCA, PPCA, and FOS factors to the period from October 1, 2024, until December 31, 2024, or until this Energy Bureau modifies them ("September 30th Order").

12. Consequently, On October 1, 2024 ("October 1st Order"), this Energy Bureau requested LUMA to provide or clarify certain information included in Attachments A and B

3

concerning the reasonable dispatch of energy from the generation plants from LUMA and any imprudence in the maintenance of the generation system operated by Genera on or before October 8, 2024, at 2 p.m. Additionally, through the October 1st Order, the Energy Bureau ordered LUMA to disclose whether it is currently experiencing or may encounter liquidity issues as a result of the Energy Bureau's decision to keep the existing factors unchanged, or for any reasons, along with the strategies it was contemplating to address these challenges.

13. In compliance with the October 1st Order, LUMA hereby submits in Exhibit 1 to this Motion its responses to the requests for information posed by the Energy Bureau Attachments A and B of the October 1st Order and supporting materials in form of two (2) pdf files titled "*Annex A_System Status Daily Update (June 2024-August 2024).pdf*" and "*Annex C_Jun-Aug 2024 Fuel Purchased Power Drivers.pdf*" and in the form of an Excel spreadsheet titled "*Annex D_Estimated Incremental Fuel Costs Analysis for June-Agust 2024.xlsx*". Several requests for information in the Energy Bureau's October 1st Order relate to information under the control or the responsibility of Genera as operator of the PREPA's Generation Facilities. Therefore, LUMA contacted Genera and requested that it respond to such information requests. The requests for information as to which Genera provided information in response to the October 1st Order are numbers 2-1 (b) and 2-1(g) to(i), 2-2(d), 2-6(c) and 2-6(d),2-7, 2-9, and 2-11 from Attachment A, as reflected in Annex B to the Exhibit 1 to this Motion.¹

Furthermore, LUMA hereby submits in Exhibit 2 to this Motion the response of the
October 1st Order to disclose whether it is currently experiencing or may encounter liquidity issues

¹ LUMA will submit in due course a memorandum in support of the responses filed today to Attachments A and B of the October 1st Order. Specifically, LUMA will discuss the topic of prudent and reasonable costs concerning fuel costs and energy dispatch in Puerto Rico.

as a result of the Energy Bureau's decision to keep the existing factors unchanged or for any reasons, along with the strategies it is contemplating to address these challenges.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned and **deem** that LUMA complied with the October 1st Order.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, on this 8th day of October 2024.

I hereby certify that I filed this Motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this Motion to counsel for PREPA Lionel Santa <u>lionel.santa@prepa.com</u>, counsels for Genera, <u>alopez@sbgblaw.com</u> and <u>jfr@sbgblaw.com</u> and to the Independent Consumer Protection Office, through Director Hannia Rivera, <u>hrivera@jrsp.pr.gov</u>, and <u>RegulatoryPREBOrders@lumapr.com</u>.



500 Calle de la Tanca, Suite 401 San Juan, PR 00901-1969 Tel. 787-945-9132 Fax 939-697-6102

/s/ Yahaira De la Rosa Algarín Yahaira De la Rosa Algarín RUA NÚM. 18,061 yahaira.delarosa@us.dlapiper.com <u>Exhibit 1</u>

Introduction/Overview

LUMA operates government-owned Transmission and Distribution (T&D) assets pursuant to a long-term agreement administered as part of a public-private partnership overseen by the Puerto Rico Public-Private Partnerships Authority (P3A), in its capacity as Administrator, and subject to regulatory oversight by the Puerto Rico Energy Bureau (PREB or Energy Bureau). Pursuant to the Puerto Rico Transmission and Distribution Operation and Maintenance Agreement (T&D OMA) between the Puerto Rico Electric Power Authority (PREPA), P3A, LUMA Energy, LLC and LUMA Energy ServCo, LLC, executed on June 22, 2020, LUMA is tasked with improving the reliability and resilience of Puerto Rico's electric grid.¹ System operations are part of LUMA's scope and include the following:

- 1) Managing the control center operations, including generation scheduling and economic/reliable T&D System dispatch,
- Balancing the supply and demand of electricity, including reacting to changes in demand in real time, adjusting generation dispatch to be in balance with demand and maintaining the T&D System at safe operating levels in accordance with Prudent Utility Practices and System Operation Principles (SOP),
- 3) Conducting T&D System planning activities,
- Developing and implementing reliability standards appropriate for the conditions in Puerto Rico; and
- 5) Managing a transparent, equitable and open generator interconnection process.²

It is critical to remember that LUMA does not generate electricity and does not own or operate any generation facilities. LUMA is the operator of the T&D System. LUMA relies on generation resources operated by Genera PR, LLC (Genera), EcoEléctrica, AES, and other independent power producers to coordinate generation dispatch and maintain system security and reliability while effectively addressing customer demand and prioritizing customer affordability. In accordance with the T&D OMA – and consistent with Prudent Utility Practice - LUMA seeks to ensure system security and reliability using Economic Dispatch Principles.³

While LUMA acts as System Operator, it is not responsible for the development of additional generation resources nor for the availability of existing generation resources. Decisions regarding the addition of new generation resources are ultimately made by the Government of Puerto Rico, which determines the type, location, and timing of these resources, while the responsibility decisions on what kind of resources are added, where and when, while the responsibility for maintaining generation resources and fulfilling minimum availability requirements lies with the generators.

In entering into the T&D OMA, the Government of Puerto Rico recognized the deteriorated, outdated and mismanaged condition of the T&D System and the energy system in general. Consequently, the

³ See Annex (I)A(C)(D) of the T&D OMA; and I-19 of Schedule I to Annex I System Operation Principles of the T&D OMA.



¹ See Article 5 "O&M Services" of Annex I of the T&D OMA.

² See Annex I(I)(C) "Scope of Services" of the T&D OMA.

Operation and Maintenance (O&M) services that LUMA must provide under the T&D OMA, including system operations, are contingent upon the development and execution of the System Remediation Plan (SRP). This plan outlines the necessary remediation efforts to elevate Puerto Rico from having the least efficient large electric utility in North America to minimum industry standards.⁴ Both the T&D OMA and the SRP, as approved by the Energy Bureau, recognize that remediation will progress over time, constrained by available budgets and resources, and that LUMA's performance is linked to the gradual implementation of the SRP.⁵

LUMA reports quarterly and annually on progress of the improvement programs that make up the SRP.⁶ LUMA has made significant progress across multiple SRP Initiatives over the last three years. As of FY2024, LUMA has successfully completed eleven Improvement Programs and has achieved full remediation of ten Improvement Programs.

Generation Resource Limitations

Since starting operation and maintenance of the T&D System, LUMA has developed and submitted to the Energy Bureau two annual Resource Adequacy Reports with findings relating to Puerto Rico's generation portfolio.⁷ These Resource Adequacy reports have consistently highlighted a substantial shortfall in generation capacity, indicating that the reliability of Puerto Rico's current generation portfolio is considerably below that of any other utility across North America.⁸

In its initial Report, which was the first report of its kind in Puerto Rico, submitted on August 30, 2022, LUMA emphasized the importance of PREPA maintaining, at a minimum, a 65% availability rate of its thermal generation plants to ensure adequate resources to meet projected energy demand.⁹ Similarly, LUMA's report for FY2023, further noted that Puerto Rico required an additional 675 MW of perfect capacity to satisfy minimum utility planning standards.¹⁰ However, since August 2022, the availability of PREPA's thermal generations units, now operated by Genera, has remained around 40%, although recent months have seen an improvement to the low 50% range. This progress is commendable but still falls short of the minimum availability levels outlined in the Resource Adequacy reports.¹¹

LUMA currently estimates that an additional 800 MW of generation capacity is necessary to meet minimum resource adequacy standards for FY2025. This profound generation gap poses an ongoing risk to the stability and reliability of Puerto Rico's energy system. Without the addition of new capacity or improvements in the performance of existing units, there will be no significant reductions in generation costs.

⁶ Id.

¹¹ See LUMA Resource Adequacy Study Docket No. NEPR-MI-2022-0002.



⁴ See section 4.1(d) of the T&D OMA.

⁵ See In Re: Review of the Puerto Rico Electric Power Authority's System Remediation Plan, Docket No. NEPR-MI-2020-0019.

⁷ See LUMA Resource Adequacy Study Docket No. NEPR-MI-2022-0002.⁷

⁸ Id.

⁹ See Exhibit 1 of August 30, 2024 of LUMA's Motion, Docket No. NEPR-MI-2022-0002.

¹⁰ See Appendix 20. Sensitivity Analysis – Comparison of Scenario Results of Resource Adequacy Study of August 30, 2022, Docket No. NEPR-MI-2022-0002.

Dispatch of Generation Driven by Affordability, Demand & Subject to Generation Limitations

The ongoing generation availability insufficiency plays a significant role in Security Constrained Economic Dispatch (SCED), which is the dispatch of available generation to meet electricity demand at the lowest cost to reliably serve consumers while recognizing the operational and other limits of generation and transmission facilities.¹² SCED co-optimizes energy cost and system security. LUMA carries out SCED in accordance with the System Operation Principles by adjusting the dispatch to incorporate grid conditions and ensure operational stability and reliability. During real-time operations, adjustments to dispatch are often made to address contingencies that impact grid reliability.

Utilizing previously established schedules for each generation resource, real time performance and cost information, as well as forecasted demand and supply, LUMA allocates available generation in accordance with the Economic Dispatch Merit Order (EDMO). However, various factors affect Economic Dispatch, including scheduling, Unit Commitment, reliability protocols, contractual obligations, and environmental permit considerations.

Economic Dispatch can be viewed as having two distinct phases: (i) Unit Commitment, which is conducted prior to real-time operations and establishes which generation units should be readily available for dispatch, and (ii) Unit Dispatch, which occurs in real time, and is based on the actual availability of the generation units at the point in time they are needed.

LUMA determines Unit Commitment each day based on the operational status reported by each generator. This schedule is then communicated back to generators to inform them of their anticipated output for the following 24 hours.¹³ In line with SCED, LUMA modifies the Unit Dispatch to account for grid conditions and maintain reliable operations.

Prioritizing Cost-Effective Dispatch with LUMA's Emergency Management System

LUMA develops its EDMO utilizing an Energy Management System (EMS) which provides an analysis of key inputs such as unit availability and operating limitations, heat rates, fuel prices (which LUMA does not determine or control), cycling considerations and the costs of starts and stops, among others. The EMS then produces an EDMO of the available generation to meet the daily expected demand. As system supply and demand conditions evolve, including as a result of changes in demand, system topology, unexpected generator outages or operating limitations, the EDMO is modified and updated in real time to account for these evolving conditions. Changes in system conditions are typical to system operations and occur multiple times per day, requiring operators to react in real-time to maintain service.

The EMS equips LUMA with the capability to issue dispatch orders that prioritize the most cost-effective generation given real-time situations. For plants equipped with Automatic Generation Control (AGC), the EMS transmits electronic signals to adjust their output in response to demand fluctuations. For plants

¹³ LUMA supplies daily updates to the Energy Bureau regarding the operational status of each plant and unit. These daily reports serve as a snapshot of availability at the time of reporting and are what LUMA uses to perform unit commitment for the current day and day-ahead. Please refer to Annex A of this filing for all LUMA's daily reports from June 1, 2024, through August 31, 2024.



¹² See page 75 of LUMA's Submittal and Request for Approval of System Operation Principles of February 25, 2021, Docket No. NEPR-MI-2021-0001.

See I-19 of Schedule I to Annex I System Operation Principles of the T&D OMA.

lacking AGC, LUMA engages directly with plant operators through multiple available means of communication.

These real-time directives look to ensure the generation portfolio is dispatched in the most efficient and lowest cost manner based on real-time constraints. The dispatch decision-making process is complex and must considers both immediate requirements and anticipate potential changes in load or generation in the near-term.¹⁴ The EMS – and LUMA staff – carefully navigate these difficulties to achieve least-cost dispatch.

The EMS approach and EDMO methodology implemented by LUMA is consistent with practices employed in other systems across the globe. While generators in Puerto Rico experience more frequent outages and intraday constraints than those in other systems, all power portfolios face some level of real-time fluctuations in generator availability and other factors. Typically, system operators employ an EMS to adapt to dynamic landscapes by economically dispatching available units. However, given Puerto Rico's lower resource availability rates relative to system demand, limited generator control, and a heavy dependence on manual operations, such as the need for manual dispatch of numerous simple cycle gas turbines within the system, deviations from the optimal EDMO are more frequent, more likely to occur and unavoidable.¹⁵

Fuel and Purchased Power Cost Forecasting

While LUMA is not responsible for generation, as T&D Operator, LUMA is responsible, as directed by the Energy Bureau, for calculating fuel and purchased power costs. LUMA does not determine the final impact that fuel costs may have on customer rates, nor does LUMA financially benefit from any fuel cost adjustments.

LUMA utilizes PROMOD, a widely used and useful tool for forecasting costs based on expected load, generator availability, fuel prices, amongst other factors to forecast the expected performance of the energy system. As with any forecast, actual results vary based on the conditions observed during the operation of the system. To conduct its PROMOD forecast, LUMA relies, in large part, on information provided by generators related to unit availability, heat rates, fuel mix, and other factors. LUMA's short-and medium-term forecasts, including expected generation by unit and consumption levels by type of fuel, are dependent, in large part, on the accuracy of the information supplied by generators. Each deviation between the information used to develop a forecast and the circumstances seen in real-time is incorporated by the EDMO which calculates a new dispatch to reflect actual conditions.

LUMA develops monthly preliminary analyses of fuel and purchased power costs. The following three factors are the primary contributors to variations in fuel and purchased power costs:

- 1) Shortfall in expected generator availability, leading to the dispatch of more expensive units,
- 2) Fuel prices driven by global fossil fuel trends; and
- 3) Changes in energy demand.

¹⁵ Discussed in greater detail in LUMA's annual Resource Adequacy Study filed in Docket No. NEPR-MI-2022-0002. The current report is dated December 11, 2023; however, an updated Resource Adequacy Study is expected to be submitted to PREB in the coming weeks.



¹⁴ For example, as the evening peak approaches, operators must react to real-time conditions while simultaneously plan generation requirements needed in the following hours to account for generation unit ramp up rates.

While the impact of each factor fluctuates each month, collectively they account for most of the variances in costs. Additional factors, such as heat rates and natural gas availability at specific plants also play a role, particularly as they relate to generator availability issues.



LUMAPR.COM

NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-1

REQUEST

Refer to the information provided in RFI-LUMA-MI-2020-0001 -20240924-PREB-#A-01, and the following table indicating that fuel and power costs were from \$50 million to \$85 million higher:

Incremental Costs Due to Outages and Generating Uni	t Unavailab	ility			
Amounts in Millions of Dollars			LUMA Estimated		
		incre	men	tal Cos	st
Contributor	Month	Low		High	
lack of production from EcoElectrica and SJCC 5 and 6	Aug. 2024	\$	35	\$	60
Lower production and efficiency from SJ and	June thru				
Palo Seco TMs	Aug. 2024	\$	15	\$	25
Totals		\$	50	\$	85

Source: RFI-LUMA-MI -2020-0001-20240924-PREB-#A-01

- a. What was the cause for the lack of production from EcoEléctrica during August 2024?
- b. What was the cause for the lack of production from SJCC units 5 and 6 during August 2024?
- c. Was any portion of the lack of production from EcoEléctrica during August 2024 attributable to not having sufficient natural gas available? If so, explain fully and quantify the impact.
- d. Was any portion of the lack of production from EcoEléctrica during August 2024 attributable to transmission lines being down or derated? If so, explain fully and quantify the impact.
- e. Was any portion of the lack of production from SJCC units 5 and 6 during August 2024 attributable to not having sufficient natural gas available? If so, explain fully and quantify the impact.
- f. Was any portion of the lack of production from SJCC units 5 and 6 during August 2024 attributable to transmission lines being down or derated? If so, explain fully and quantify the impact.
- g. Was any portion of the lack of production from SJCC units 5 and 6 and EcoEléctrica during August 2024 attributable to inadequate maintenance of generation or transmission plant? If so, explain fully and quantify the impact.
- h. Was any portion of the lower production from the San Juan and Palo Seco TMs during the June through August 2024 period due to not having sufficient fuel available to run those units at optimal economic dispatch? If so, explain fully and quantify the impact.



- i. Was any portion of the lower production from the San Juan and Palo Seco TMs during the June through August 2024 period due to inadequate maintenance of generation or transmission plant? If so, explain fully and quantify the impact.
- j. Has LUMA done any root cause analysis for the higher fuel and power costs during the June through August 2024 period that would be useful in preventing similar occurrences in subsequent months? If not, explain fully why not. If so, identify and provide the root cause analysis conducted to date.

RESPONSE

a. On August 1, 2024, at 0406 hours, EcoEléctrica's Combustion Turbine (CT) 1 unit experienced a Main Power Transformer (MPT) failure of the, leading to a complete power loss of 265 MW. This loss included 175 MW from the CT 1 unit and 90 MW from the combined output of EcoEléctrica's Steam Turbine (STG) and CT 1 units. The transformer was not replaced by EcoEléctrica until September 12, 2024, at 1534 hours, resulting in an extended outage.

by Tropical Storm Ernesto also impacted the overall system load during this time, which caused temporary disruptions to transmission and distribution assets, affecting EcoEléctrica's CT 2 and Steam Turbine STG units. As a result, LUMA System Operations requested the STG unit to be taken offline from August 14, 2024, at 0518 hours, until August 15, 2024, at 1322 hours. While EcoEléctrica's CT 2 unit resumed operations on August 15, 2024, the STG unit was reported unavailable due to an internal mechanical failure of the main control valve. The STG unit remained offline from August 14, 2024, at 0518 hours, until it was repaired and synchronized on August 25, 2024, at 0501 hours.

b. Since June 12, 2024, and throughout the rest of the reconciliation period, both Steam Turbines (STM) from San Juan Combined Cycle (SJCC) 5 and 6 were offline due to a fault in the turbine bearings. On August 1, 2024, at 0357 hours, an event at the San Juan facility switchyard caused San Juan CT) 5 and 6 to go offline. San Juan 5 CT returned to service on August 1, 2024, at 1553 hours, and San Juan 6 CT returned to service on August 9, 2024, at 2026 hours.

On August 13, 2024, in anticipation of Tropical Storm Ernesto, the United States (U.S.) Coast Guard requested New Fortress Energy (NFE) to relocate the Liquified Natural Gas (LNG) Storage Ship from the San Juan port. Consequently, San Juan 5 CT was converted from natural gas to diesel fuel, and San Juan 6 CT was taken offline on August 13, 2024, at 1222 hours. The NFE LNG Storage Ship returned to the San Juan port on the afternoon of August 15, and San Juan 5 CT was switched back to natural gas at 1549 hours, with San Juan 6 CT being synchronized on August 16 at 1755 hours.

On August 20 at 0118 hours, San Juan 6 CT tripped and, , remains out of service as of October 8, 2024, and is not expected to return to service until February 28, 2024.

Please refer to Annex B of this filing for Genera's response to this question.

c. LUMA is not aware of the decreased output at EcoEléctrica in August 2024, as well as any natural gas supply shortages or restrictions.



- d. No portion of the decreased output at EcoEléctrica during the month of August 2024 is attributed to transmission line outages or deratings.
- e. As discussed in response 2-1 (b), San Juan CT unit 5 ran on diesel fuel for two days after the U.S. Coast Guard requested the LNG Storage Ship be removed from the San Juan port in preparation for Tropical Storm Ernesto. Approximately 7,000 MWH were produced from San Juan CT unit 5 on Diesel fuel during the ~53 hours of this event, representing an estimated \$1 million in incremental fuel costs from burning diesel instead of natural gas.
- f. Please refer to the response to 2-1(b). Operation of San Juan CC units 5 & 6 were interrupted by the June 12 event. San Juan STM 5&6 were out of service for the remainder of the June to August period. The August 1 event impacted the San Juan's CT 5 & 6 units. However, other factors, unrelated to the events of June 12 and August 1, impacted the overall availability of the SJ 5&6 combined cycle.
- g. During the Front-End Transition period, LUMA assessed the utility, its organization and its assets, concluding that physical assets were in poor condition as a result of storm damage, age, and deferred maintenance. The assessment further confirmed that the T&D System was in a state of disrepair, significantly deteriorated, and needed comprehensive and extensive repairs, upgrades, and remediation. Although LUMA has made progress in addressing many of the conditions that undermine the reliability of the energy system, and customers have experienced improvements in their service, the T&D System will continue to be prone to equipment failures until full remediation is achieved. LUMA remains focused on undertaking all actions, within existing budgetary constraints, required to improve the overall reliability of the T&D System.

LUMA cannot attribute the lack of production of SJCC 5 and 6 and EcoEléctrica during the month of August 2024 to inadequate maintenance of any transmission asset.

Please refer to Annex B of this filing for Genera's response to this question.

h. Due to Tropical Storm Ernesto's probable path through Puerto Rico, the U.S. Coast Guard requested NFE move its LNG Storage Ship out of the San Juan port. Dispatch for San Juan and Palo Seco's Trailer Mounted (TM) units (Former FEMA Generators) was affected since the NFE LNG Terminal was shut down. Genera informed LUMA's System Operations that they were evaluating diesel usage. Palo Seco TM units were taken out of service on August 13, 2024, at 0915 hours, and San Juan TM units at 0957 hours. NFE's LNG Storage Ship returned to the San Juan port on the afternoon of August 15 and San Juan's TM units were synchronized between 1711 hours and 1932 hours. Palo Seco's TM units were synchronized between 1919 hours and 2002 hours.

Please also refer to Annex B of this filing for Genera's response to this question.

i. Please refer to the response to 2-1(g). LUMA cannot attribute the lack of production of San Juan and Palo Seco TMs during June through August 2024 to inadequate maintenance of any transmission asset.

Please also refer to Annex B of this filing for Genera's response to this question.



j. LUMA conducts monthly assessments of fuel and purchased power costs. These costs are primarily influenced by factors such as: (1) a shortfall in expected generator availability, leading to the dispatch of more expensive units instead of the cheaper, more efficient baseload units; (2) fuel prices driven by global fossil fuel market trends, and (3) changes in electricity demand. Although the impact(s) of each factor may vary from month-to-month, together they account for most of the changes in fuel and purchased power costs. Additional factors include higher heat rates, and the availability of natural gas at Costa Sur and San Juan, both of which are closely linked to factor 1. That is, baseload generation shortfalls necessitate using less efficient units to satisfy demand.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-2

REQUEST

Based on the information provided in RFI-LUMA-MI-2020-0001 -20240924-PREB-#A-04, actual fuel expenses of \$639.3 million during the June through August 2024 period were approximately \$131.5 million or 26% higher that LUMA's projected amount of \$507.8 million:

		Jun-24					
	Fo	recast	A	ctual	D	iff (\$)	Diff(%)
HFO	\$	71.2	\$	103.6	\$	32.4	46%
Naural Gas	\$	86.7	\$	78.3	\$	(8.4)	-10%
Diesel	\$	11.3	\$	36.9	\$	25.6	227%
Total	\$	169.2	\$	218.8	\$	49.6	29%
		Jul-24					
	Fo	precast	A	ctual	D	iff(\$)	Diff(%)
HFO	\$	66.4	\$	105.2	\$	38.8	58%
Naural Gas	\$	88.6	\$	77.9	\$	(10.7)	-12%
Diesel	\$	11.4	\$	30.8	\$	19.4	170%
Total	\$	166.4	\$	213.9	\$	47.5	29%
		Aug-24					
	Fo	precast	A	ctual	D	oiff(\$)	Diff(%)
HFO	\$	63.1	\$	88.2	\$	25.1	40%
Naural Gas	\$	95.5	\$	63.1	\$	(32.4)	-34%
Diesel	\$	13.6	\$	55.3	\$	41.7	307%
Total	\$	172.2	\$	206.6	\$	34.4	20%
	Reconciliation June-August 2024 Totals						
	Fo	precast	A	Actual	Ľ	0iff(\$)	Diff(%)
HFO	\$	200.7	\$	297.0	\$	96.3	48%
Naural Gas	\$	270.8	\$	219.3	\$	(51.5)	-19%
Diesel	\$	36.3	\$	123.0	\$	86.7	239%
	¢	507.8	2	630 3	\$	131.5	260/

RFI-LUMA-MI-2020-0001-20240924-PREB-#A-04

- a. For each month in the June through August 2024 period, please identify the quantity of generation that LUMA had projected for each fuel type (HFO, natural gas and diesel) that was used by LUMA in its forecast fuel costs for each month.
- b. For each month in the June through August 2024 period, why was so much less natural gas used than had been forecasted by LUMA?



- c. How much of the \$131.5 million in net increased actual costs above LUMA's forecasted fuel costs for the June through August 2024 period is attributable to unplanned outages? Explain fully and show the analysis.
- d. How much of the \$131.5 million in net increased actual costs above LUMA's forecasted fuel costs for the June through August 2024 period is attributable to having inadequate maintenance on generating units? Explain fully and show the analysis.

RESPONSE

a. Please refer to Table 1-1 below for forecasted generation by fuel type, as per LUMA's PROMOD simulation used to calculate the June through August FCA/PPCA factors approved by the PREB:

Month	Forecasted Natural Gas Generation (MWh)	Forecasted Heavy Fuel Oil Generation (MWh)	Forecasted Diesel Generation (MWh)
June 2024	920,244.24	405,453.66	44,076.22
July 2024	913,382.51	379,418.25	48,776.49
August 2024	1,025,872.12	361,046.85	56,208.37

Table Error! No text of specified style in document.-1. Forecasted Generation

- b. For the June through August 2024 period, less natural gas was used than forecasted due to the following factors:
 - i. Lower-than-expected natural gas supply availability at Costa Sur. Forecasted natural gas supplies to Costa Sur are based on information provided by Genera.
 - ii. Lower-than-expected natural gas generation production from San Juan Combined Cycle 5 and 6 (please refer to 2-1(b)).
 - iii. Lower-than-expected generation production from EcoEléctrica in August (please also refer to 2-1(a)).
 - iv. Lower-than-expected generation production from San Juan and Palo Seco TMs (former FEMA generators) throughout the period was mainly attributable to one of the TM units in San Juan being out of service since early June due to equipment failure (gear box issues), and because the U.S. Coast Guard requested NFE move its LNG storage ship consequently affecting dispatch for San Juan and Palo Seco's TM units.
- c. The following table outlines the primary factors influencing fuel cost fluctuations from June to August 2024, ranked from the most to the least impactful.

Contributors to Fuel Cost Variance	Period of Concentration	Estimated Incremental Fuel Costs (\$ millions)
Higher load	June - August	\$25 - \$47
Lower production from San Juan Combined Cycle 5&6 mainly due to equipment failure	August	\$9 - \$32

Table Error! No text of specified style in document.-2. Fuel Cost Fluctuations June to August 2024



Contributors to Fuel Cost Variance	Period of Concentration	Estimated Incremental Fuel Costs (\$ millions)
Lower production from EcoEléctrica due to equipment failure	August	\$9 - \$28
Lower production and heat rate variance from SJ & Palo Seco TMs (former FEMA generators)	June - August	\$8 - \$23
Lower production from AES 1 due to implementation of previously deferred annual maintenance outage	June	\$5 - \$23
Lower Natural Gas consumption in Costa Sur – replaced by Residual FO ¹	June - August	\$21
Diesel consumption in SJCC 5&6	June - August	\$7

¹ Estimated incremental fuel costs due to Residual consumption replacing Natural Gas in in Costa sur does not reflect any credits from the fuel supplier.

For detailed analysis, please refer to Annex C included with this filing for an Excel Spreadsheet titled "*Estimated Incremental Fuel Costs Analysis for June – August 2024.*"

d. Please refer to Annex B of this filing for Genera's response to this question.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-3

REQUEST

LUMA's response to RFI-LUMA-MI -2020-0001-20240924-PREB-#B-02 states, among other things, that: "During the months of June, July and August, the level of forced outages was more impactful than planned outages."

a. Identify and provide the analysis done by LUMA showing the relative impacts of (1) planned outages and (2) unplanned outages on fuel and purchased power costs for each month in the June through August 2024 period.

RESPONSE

Please refer to the response to 2.2(c) showing the top contributors to fuel cost variances for the period of June to August 2024, which stem from LUMA's monthly variance analysis on fuel and purchase power costs. Unplanned outages at San Juan Combined Cycle (SJCC) 5 and 6, EcoEléctrica, and San Juan & Palo Seco TMs are the biggest contributors to the lower production observed in those units, while the lower production from AES is the biggest contributor costs attributable to planned outages.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-4

REQUEST

As listed in 2-LUMA's response to RFI-LUMA-MI-2020-0001 -20240924-PREB-#B-02 Palo Seco 4 has been experiencing a scheduled (planned) outage from August 8, 2023 through February 28, 2025. Approximately how much of the increased fuel and purchased power cost during the June through August 2024 period is attributed to Palo Seco 4 being out. Explain fully and show calculations.

RESPONSE

Palo Seco 4 experiencing a scheduled outage did not result in any incremental fuel cost from June through August 2024. This unit was already assumed to be offline in the PROMOD simulation used to calculate the FCA/PPCA factors approved by the PREB. LUMA notes that this base load unit has been offline for a long time, contributing to thinner reserve margins, which often require higher usage of more expensive generating units.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-5

REQUEST

As listed in 2 -LUMA's response to RFI-LUMA-MI-2020-0001-20240924-PREB-#B-02 San Juan units 9 and 6 also had planned outages during the June through August 2024 period. Approximately how much of the increased fuel and purchased power cost during the June through August 2024 period is attributable to San Juan units 6 and 9 being out? Explain fully and show calculations.

RESPONSE

To mitigate generation short falls, neither San Juan 6 nor San Juan 9 underwent scheduled maintenance during this period. Thus, the planned outages did not directly contribute to the estimated incremental fuel costs for the period.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-6

REQUEST

During the June through August 2024 time period, the system had inadequate generation reserves during many hours, which are listed in LUMA's response to RFI-LUMA-MI-2020-0001-20240924-PREB-#B-03. There were numerous manual and automatic load shed events during this period as listed in LUMA's response to RFILUMA-MI -2020-0001-20240924-PREB-#B-01.

- a. Does LUMA have plans for preventing the frequency and intensity of such situations of having inadequate generation reserves from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.
- b. Does LUMA have plans for preventing the frequency and duration of such load shed events from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.
- c. Does Genera have plans for preventing the frequency and intensity of such situations of having inadequate generation reserves from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.
- d. Does Genera have plans for preventing the frequency and duration of such load shed events from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.

RESPONSE

 a-b. LUMA does not operate, maintain, or generate electricity. As the system operator, LUMA monitors and dispatches available generation resources operated by Genera, EcoElectrica, AES, and other private generators to meet customer demand and ensure the reliability of the overall system.
LUMA does this based on the day-ahead and real-time availability information provided by the generators.

LUMA has implemented the Customer Battery Emergency Sharing (CBES) program as a mechanism to address the challenges of insufficient generation. Enrolled customers enable aggregators to activate their batteries, as needed, to contribute energy to the grid, thereby helping mitigate service disruptions and enhance overall system reliability. At the time of this



filing, there are a total of four (4) aggregators and 7,168 customers enrolled in the CBES providing 26,445 kW of available capacity and 56,445 kWh of available energy per event.

LUMA is also advancing a long-term mitigation strategy through its Accelerated Storage Addition Program (ASAP), aimed at rapidly deploying Battery Energy Storage Systems (BESS) at existing Independent Power Producer (IPP) sites. This initiative involves developing a Standard Offer Agreement that can be utilized by existing generators which will significantly reduce the time needed to deploy new storage facilities compared to the current Tranche solicitation process. Phase I of ASAP is targeting an estimated 180 MW of 4-hour storage, or 720 MWH of energy storage. While Phase II total participation estimates have not yet been finalized, at least another 180 MW of 4-hour storage is expected to be added in later phases. LUMA will utilize the additional BESS capacity to deliver important services such as peak load support, spinning and offline reserves, voltage stabilization, and frequency regulation, thereby enhancing system reliability and minimizing load-shedding incidents. While final deployment schedules for ASAP Phase I are still being finalized, preliminary estimates from generators are that these units will reach their Commercial Operation date within 12-18 months of receiving regulatory approval.

- c. Refer to Annex B of this filing for Genera's response to this question.
- d. Refer to Annex B of this filing for Genera's response to this question.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-7

REQUEST

During the June through August 2024 period was any required maintenance on generating units omitted? If yes, identify the required generating plant maintenance that was omitted during the June through August 2024 period.

RESPONSE

Please refer to Annex B of this filing for Genera's response to this question.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-8

REQUEST

During the June through August 2024 period was any required maintenance on transmission and distribution plant omitted? If yes, identify the required T&D plant maintenance that was omitted during the June through August 2024 period.

RESPONSE

No. There was no transmission or distribution asset maintenance work planned for the period of June to August 2024 was omitted.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-9

REQUEST

For the period October through December 2024, will any required maintenance on generating units be omitted or postponed? If yes, identify the required generating plant maintenance that could be omitted or postponed during the October through December 2024 period. Also, explain the consequences of omitting or deferring that maintenance and how the analysis of the likely consequences are factoring into the decision-making process.

RESPONSE

Please refer to Annex B of this filing for Genera's response to this question.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-10

REQUEST

For the period October through December 2024, will any required maintenance on transmission and distribution plant be omitted or postponed? If yes, identify the required T&D plant maintenance that could be omitted or postponed during the October through December 2024 period. Also, explain the consequences of omitting or deferring that maintenance and how the analysis of the likely consequences are factoring into the decision-making process.

RESPONSE

For the period from October through December 2024, LUMA does not anticipate omitting or postponing planned transmission and distribution maintenance work.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-11

REQUEST

For the period October through December 2024, identify and explain all generation plant maintenance that should be undertaken but is not, because of funding limitations.

RESPONSE

Please refer to Annex B of this filing for Genera's response to this question.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-12

REQUEST

For the period October through December 2024, identify and explain all T&D plant maintenance that should be undertaken but is not, because of funding limitations.

RESPONSE

LUMA will continue to perform maintenance prioritizing the worst-performing substation(s) and transmission lines from October through December 2024, in alignment with its plan to maintain T&D assets and to improve customer reliability. Maintenance is not expected to impact the generation dispatch.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(A)2-13

REQUEST

Refer to LUMA's response to RFI-LUMA-MT-2020-0001-20240924-PREB-#A-06, which indicates that LUMA inadvertently did not return the \$400,000 interconnection cost reserve item to customers. Can that \$400,000 interconnection reserve amount discussed in that response be mathematically refunded to customers in the October through December 2024 quarterly factor period merely by subtracting that amount from LUMA's proposed costs for that period? If some additional calculations relating to LUMA's proposed October 1, 2024 quarterly factors besides simply subtracting the \$400,000 amount from LUMA's proposed costs, would be needed to effectuate the return of that amount to customers, please identify, quantify and explain the additional calculations that LUMA believes would be needed to return the \$400,000 to customers in the October through December 2024 quarterly factor rates.

RESPONSE

LUMA's June 28th factors submission included an adjustment to the PPCA reconciliation to account for overcollection pertaining to a reserve for the third amendment of the PPOA between AES and PREPA. Please refer to the *tab "PPCA Adjustment Summary*".¹⁶ As stated in LUMA's response to RFI-LUMA-MI-2020-0001-20240924-PREB-A-06, this tab was prepared to determine the cumulative adjustment required to the PPCA based on a holistic reconciliation of all amounts put through PPCA during FY2024. The \$400,000 interconnection cost reserve was reflected in actual costs; therefore, it was not returned to customers.¹⁷ LUMA proposed to keep the \$400,000 as a reserve for future interconnection costs and return the \$1.5 million collected in July and August over the same period through the prior-period reconciliation.

If directed by the Energy Bureau, LUMA can return the \$400,000 to customers by subtracting the amount from the prior period reconciliation in the next factors calculation.

¹⁷ See Updated-July-September 2024 Proposed Factors.v2.xlsx, tab title "PPCA Adjustment Summary", cell J23 of LUMA's June 28, 2024 Motion, Docket No. NEPR-MI-2020-0001.



¹⁶ See Updated-July-September 2024 Proposed Factors.v2.xlsx, tab title "PPCA Adjustment Summary" of LUMA's June 28, 2024 Motion, Docket No. NEPR-MI-2020-0001.

NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(B)1

REQUEST

Provide a detailed explanation of how LUMA determines the merit order for dispatching electricity from the various generation units. This includes the criteria and factors considered in ranking the units.

RESPONSE

LUMA develops the merit order for dispatching available generation units by using the Energy Management System (EMS). The EMS analyzes the key inputs of unit availabilities and limitations, heat rates, fuel prices, cycling considerations, and the costs of starts and stops. It applies these inputs to dispatch the available generation portfolio in order of least cost to next higher cost successively until generation meets the energy demand. The EMS analyses and optimizes for day-ahead but also provides the merit order on a real-time basis by adjusting the merit order to account for unexpected generator outages or operating limitations, which occur on a routine basis several times per day. LUMA applies this approach and calculation methodology in the same manner it is applied by system operators around the world, and in a manner consistent with LUMA's System Operating Principles. While generators in Puerto Rico are more prone to outages and daily limitations than other systems, all power portfolios incur daily change(s) in generator availability and utilize a tool such as the EMS to dispatch available units economically.

The merit order calculation on the EMS automatically adjusts and dispatches the most economic units that are available each day and hour.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(B)2

REQUEST

Describe in detail how the Economic Merit Order Dispatch was adjusted as a result of the outages that occurred during June, July, and August 2024, including which plants or resources were dispatched differently.

RESPONSE

The Unit Commitment/Merit Order is performed for real-time operation and day ahead. The Unit Commitment/Merit Order system in the EMS uses the same inputs as the PROMOD model but results in different dispatch plans due to different probabilities when considering a three-month versus a day-ahead planning horizon. The EMS provides real-time tool operators use to dispatch available generators that reflect all the daily changes in the power portfolio. These daily changes include, for example, large and small forced outages, temperatures that is hotter or cooler than expected, or higher or lower sunshine levels. Regardless, the EMS responds to these changes that might occur within a single hour.

As has been stated, a high number of real-time variations impact dispatch decisions. If the least expensive resources are not available, then the next least expensive resources are dispatched. While LUMA routinely assesses its input assumptions and dispatch decisions, given the multiple hourly and daily changes in the portfolio, sometimes exceeding several dozen in a day, LUMA primarily focuses on maintaining available generation to meet demand, and relies on input assumptions and EMS to indicate the economic decision based on available resources at the moment. LUMA estimates a detailed, retrospective review of dispatch decisions would take several months and require a significant allocation of resources. LUMA notes the new EMS system will be able to self-monitor and analyze data trends significantly more meaningfully and less time consumingly. LUMA will routinely perform periodic assessments once the new EMS is installed.¹⁸

¹⁸ For more information, including timing and milestones please refer to the Critical Energy Management System Upgrades program brief filed with the FY2025 Annual Budget in NEPR-MI-2021-0004.



NEPR-MI-2020-0001

Response: RFI-LUMA-MI-2020-0001-20241001-PREB-#(B)3

REQUEST

Provide a breakdown of all costs incurred due to changes in the dispatch sequence during June, July, and August 2024.

RESPONSE

Please refer to response B-2 and Annex D.



DAILY GENERATION AVAILABILITY REPORT

LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/1/2024





System Availability and Status



Availability and Status as reported by each Generator



DAILY GENERATION AVAILABILITY REPORT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





DAILY GENERATION AVAILABILITY REPORT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.
For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/2/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at <u>PEAK HOURS</u> 30-May to 07-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/3/2024



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.



13 14 15

16 17 18

09 10 11 12

05 06 07 08

н

23

22

19

20

21

1,900 1,800 1,700 1,600 1,500

01 02 03 04

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

02-Jun to 10-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/4/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B Palo Seco TM 1-4 GPR San Juan TM 1-10

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



н

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

03-Jun to 11-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/5/2024

Projected System Availability and Reserves



System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



мw

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

04-Jun to 12-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/6/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILI

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





19 20 21 22 23

н

01 02 03

04 05 06 07 08 09 10 11 12 13 14 15 16 17 18

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

05-Jun to 13-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/7/2024





System Availability and Status

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

06-Jun to 14-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/8/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



Palo Seco TM 1-4

San Juan TM 1-10

GPR

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/9/2024



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY


LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator. **6/10/2024**

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

Peaking Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 GPR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B Palo Seco TM 1-4 GPR San Juan TM 1-10



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

09-Jun to 17-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/11/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



10-Jun to 18-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/12/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

11-Jun to 19-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/13/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



1,500 н

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

ONE-WEEK SYSTEM OUTLOOK



12-Jun to 20-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/14/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 GPR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

13-Jun to 21-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/15/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT'

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/16/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 GPR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/17/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity


LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 GPR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

16-Jun to 24-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/19/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

18-Jun to 26-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/20/2024

Projected System Availability and Reserves

	677	220	Previous Day	6/19/2024
PEAK DEMAND	REQUIRED RESERVES	SSS RESERVES SHORTFALL	Min. Demand 2,206 MW	Time: 6:03 AM
3,288	338	53%	Peak Demand 2,774 MW	Time: 7:55 PM
AVAILABLE SUPPLY	AVAILABLE RESERVES	AVAILABILITY RATE	Total Generation 54,984 MWh	

System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



30

25



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

19-Jun to 27-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/21/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





01 02 03 04 05 06 07 08 09 10 11 12 13

14 15

17

18 19 20 21 22 23 H

16

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



20-Jun to 28-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/22/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator. AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



Peaking Units Hydroelectric Units MW 0 50 200 250 300 10 100 150 **MW** 0 5 15 20 25 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Aguirre CC STM-1 Dos Bocas 1 Aguirre CC 2-1 RFPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 Garzas 2-1 Aguirre 2-2 Costa Sur 1-1 Patillas 1-1 PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 RFP/ Toro Negro 1-3

Toro Negro 1-4

Toro Negro 2-1

PREPA

Yauco 1-1

Yauco 2-1

Yauco 2-2

30



R

GPR

GPR

GPR

GPR

R

GPR

GPR

GPR

GPR

GPR

GPR

3PR

GPR

San Juan TM 1-10

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/23/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



Load Forecast vs Generation Availability at PEAK HOURS

20-Jun to 28-Jun 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/24/2024





System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator

мw



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 **3PR** Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A

Mayaguez 4B Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



Gross System Load - 23 June 2024

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



Load Forecast vs Generation Availability at PEAK HOURS

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/25/2024

Projected System Availability and Reserves

2 0 2 5	CEO	\bigcirc	Previous Day	6/24/2024
PEAK DEMAND	REQUIRED RESERVES	RESERVES SHORTFALL	Min. Demand 2,177 MW	Time: 3:58 AM
3,588	663	58%	Peak Demand 2,799 MW	Time: 8:00 PM
AVAILABLE SUPPLY	AVAILABLE RESERVES	AVAILABILITY RATE	Total Generation 55.125 MWh	

System Availability and Status

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A

Mayaguez 4B Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY


For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



24-Jun to 02-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/26/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



25-Jun to 03-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/27/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



			(FREFA)		(Genera)	(Genera)	(Genera)	(Genera)	(Genera)	(Genera)			(Genera)	(Genera)	(Genera)	(Genera)
Available Supply	5	101	19	147	87	123	140	151	185	232	363	566	0	343	388	578
Limitations	0	0	5	0	3	127	25	14	26	64	145	0	0	67	32	322
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Maintenance Outages	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0
Forced Outages	0	0	11	0	0	0	28	0	47	0	0	0	432	410	220	0
Out-of-Service	0	1	61	0	0	0	0	83	213	246	0	0	170	0	200	0
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 GPR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



26-Jun to 04-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

6/28/2024





System Availability and Status

For Out



Availability and Status as reported by each Generator



Available Supply	5	101	24	147	87	222	140	151	185	235	211	566	0	160	388	578
Limitations	0	0	5	0	3	28	25	14	26	61	43	0	0	250	32	322
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Maintenance Outages	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0
Forced Outages	0	0	6	0	0	0	28	0	47	0	254	0	432	410	220	0
Out-of-Service	0	1	61	0	0	0	0	83	213	246	0	0	170	0	200	0
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



30

25



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

27-Jun to 05-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/29/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

6/30/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/1/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



30

25



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY

н



Gross System Load - 30 June 2024

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



30-Jun to 08-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/2/2024





System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



01-Jul to 09-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/3/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY




LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

02-Jul to 10-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/4/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/5/2024





System Availability and Status

Forced Outages

Out-of-Service

Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.





VAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

04-Jul to 12-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/6/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>





Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/7/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/8/2024

Time:

Time:

8:54 PM



System Availability and Status

Out-of-Service

Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.





VAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

07-Jul to 15-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/9/2024



System Availability and Status



Availability and Status as reported by each Generator

□Installed Capacity



мw

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

08-Jul to 16-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/10/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

09-Jul to 17-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/11/2024





System Availability and Status



Availability and Status as reported by each Generator


LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



10-Jul to 18-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/12/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



11-Jul to 19-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/13/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at <u>PEAK HOURS</u> 11-Jul to 19-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/14/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator. **7/15/2024**

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



A	л	١.	٨
I)	/1	1	n

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

14-Jul to 22-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/16/2024





System Availability and Status



Availability and Status as reported by each Generator



MW															
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840
Out-of-Service	0	1	61	0	0	0	0	83	213	246	0	0	170	0	200
Forced Outages	0	0	6	0	0	0	55	0	68	0	0	0	432	0	120
Maintenance Outages	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0
Limitations	0	0	5	0	21	23	15	14	22	60	157	0	0	100	50

0

450

0

900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



11 12 13 14 15 16 17

18 19

23 H

20 21 22

2,300 2,200 2,100 1,900 1,800 1,700 1,600 1,500 1,400 1,300

00 01 02 03 04 05 06 07 08 09 10

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



15-Jul to 23-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/17/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

16-Jul to 24-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/18/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/




For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/19/2024

Projected System Availability and Reserves

2 100	600	E 2 7	Previous Day	7/18/2024
PEAK DEMAND	REQUIRED RESERVES	RESERVES SHORTFALL	Min. Demand 2,416 MW	Time: 5:00 AM
3,253	153	52%	Peak Demand 3,110 MW	Time: 7:55 PM
AVAILABLE SUPPLY	AVAILABLE RESERVES	AVAILABILITY RATE	Total Generation 59,715 MWh	

System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/20/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS 18-Jul to 26-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/21/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at <u>PEAK HOURS</u> 18-Jul to 26-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/22/2024





System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

21-Jul to 29-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/23/2024





System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



11 12 13 14 15 16 17 18 19 20 21 22 23

н

10

01 02

00

03 04

05

07 08 09

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/24/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



23-Jul to 31-Jul 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/25/2024





System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



AVAILABILITY AND STATUS BY LINIT AS REPORTED BY FACH FACILI

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/26/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja


LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



----- LF Yesterday + 7 Days

Real Load Yesterday

-

- TOTAL CAP + REQ RES SOP

LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/27/2024

60%

AVAILABILITY RATE



81

AVAILABLE RESERVES



System Availability and Status

3,713

AVAILABLE SUPPLY



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/28/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/29/2024

Projected System Availability and Reserves



System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

7/30/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



30

25



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



29-Jul to 06-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

7/31/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



30-Jul to 07-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/1/2024



System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

31-Jul to 08-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/2/2024

Projected System Availability and Reserves Previous Day 8/1/2024 2,850 680 167 Min. Demand Time: PEAK DEMAND REQUIRED RESERVES RESERVES SHORTFALL 1,882 MW 4:09 AM Peak Demand Time: 54% 3,363 513 2,686 MW 8:33 PM AVAILABILITY RATE AVAILABLE SUPPLY AVAILABLE RESERVES **Total Generation** *allunits are shown in MW 51,261 MWh

System Availability and Status

□Installed Capacity

102

5

100

147

90

250

220

248

мw

471

592

508

566

602

820

840

900



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK




LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/3/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



GPR

San Juan TM 1-10

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/4/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

Peaking Units Hydroelectric Units MW 0 50 200 250 300 **MW** 0 10 100 150 5 15 20 25 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Aguirre CC STM-1 R Dos Bocas 1 Aguirre CC 2-1 RFPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Costa Sur 1-1 Patillas 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 RFP/ Palo Seco 2-1 Toro Negro 1-3 R Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baja 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR Viegues 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B 3PR Mayaguez 3A Mayaguez 3B Mavaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/5/2024





System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator

мw



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

04-Aug to 12-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/6/2024

Projected System Availability and Reserves Previous Day 8/5/2024 3,250 680 367 Min. Demand Time: PEAK DEMAND REQUIRED RESERVES RESERVES SHORTFALL 2,340 MW 3:33 AM Peak Demand Time: 3,563 57% 313 3,182 MW 8:24 PM AVAILABILITY RATE AVAILABLE SUPPLY AVAILABLE RESERVES **Total Generation** *allunits are shown in MW 59,893 MWh

System Availability and Status

□Installed Capacity

102

5

100

147

90

250

220

248

мw

471

592

508

566

602

820

840

900



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



05-Aug to 13-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/7/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK Load Forecast vs Generation Availability at PEAK HOURS 06-Aug to 14-Aug 2024 MW eration available includes 0% unknown Forced Outages 6 4100 4000 3900 3800 3700 3600 3500 3400 3300 3200 3100 3000 2900 2800 2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 BASE UNITS 1500 1400 1300 6-Aug 13-Aug 7-Aug 8-Aug 9-Aug 10-Aug 11-Aug 12-Aug 14-Aug Base Units BU + Peakers Genera RESERVE GAP (SOP) Avail. CAP Yesterday Real Load Yesterday TOTAL CAP + REQ RES SOP ----- LF Yesterday + 7 Days

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/8/2024

Projected System Availability and Reserves



System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



30

25



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/9/2024





System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR I Vieques 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B

Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/10/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.
For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>







LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/11/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator. AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



Peaking Units Hydroelectric Units MW 0 50 200 250 300 **MW** 0 10 100 150 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Dos Bocas 1 Aguirre CC 2-1 RFPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Garzas 1-2





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at <u>PEAK HOURS</u> 08-Aug to 16-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/12/2024





System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

11-Aug to 19-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/13/2024





System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



2,300 2,200 2,100 1,900 1,800 1,700 1,600 1,500 1,400 1,300

00 01

02 03 04

07

08

05 06

09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

н

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/14/2024





System Availability and Status



Availability and Status as reported by each Generator

□Installed Capacity



мw

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/15/2024





System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/16/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.





30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



Gross System Load - 15 August 2024

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



15-Aug to 23-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/17/2024

Projected System Availability and Reserves



System Availability and Status

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/18/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

Peaking Units Hydroelectric Units MW 0 50 200 250 300 **MW** 0 10 100 150 5 15 20 25 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Aguirre CC STM-1 R Dos Bocas 1 Aguirre CC 2-1 REPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Costa Sur 1-1 Patillas 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 RFP/ Palo Seco 2-1 Toro Negro 1-3 R Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baja 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR Viegues 2 Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B 3PR Mayaguez 3A Mayaguez 3B

Mayaguez 4A Mayaguez 4B Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.
For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



2825 MW

2482 MW

ONE-WEEK SYSTEM OUTLOOK

15

16 17 18 19 20 21 22 23 H

Load Forecast vs Generation Availability at <u>PEAK HOURS</u>

2,900

2,800 2,700 2,600

2,500 2,400 2,300 2,100 2,000 1,900 1,800 1,700 1,600 1,500

01

02 03 04 05 06 07 08 09 10 11 12 13 14

00



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/19/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/20/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja





LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



Gross System Load - 19 August 2024

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



19-Aug to 27-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/21/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



							M	w								
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900
Out-of-Service	0	1	61	0	0	0	0	83	210	246	0	0	170	0	200	0
Forced Outages	0	0	8	0	0	0	55	0	42	50	0	390	432	0	280	450
Maintenance Outages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Limitations	0	0	6	0	4	3	19	14	25	83	7	0	0	110	5	300
Available Supply	5	101	22	147	86	247	146	151	194	163	501	176	0	710	355	150
	Landfill	Wind	(PREPA)	Solar	(Genera)	(Genera)	(Genera)	(Genera)	Peakers (Genera)	(Genera)	AES	EcoElectrica	(Genera)	(Genera)	(Genera)	(Genera)

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



San Juan TM 1-10

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



20-Aug to 28-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/22/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



Available Supply	5	101	22	147	86	250	146	151	194	233	501	175	190	280	355	170
Limitations	0	0	6	0	4	0	19	14	25	63	7	1	26	130	5	280
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Maintenance Outages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forced Outages	0	0	8	0	0	0	55	0	42	0	0	390	216	410	280	450
Out-of-Service	0	1	61	0	0	0	0	83	210	246	0	0	170	0	200	0
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS

21-Aug to 29-Aug 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/23/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



			(FREFA)		(Genera)	(Genera)	(Genera)	(Genera)	(Genera)	(Genera)			(Genera)	(Genera)	(Genera)	(Genera)
Available Supply	5	101	22	147	86	249	148	151	193	228	485	170	190	295	340	110
Limitations	0	0	6	0	4	1	17	14	26	68	23	6	26	115	20	340
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Maintenance Outages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forced Outages	0	0	8	0	0	0	55	0	42	0	0	390	216	410	280	450
Out-of-Service	0	1	61	0	0	0	0	83	210	246	0	0	170	0	200	0
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY







LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



MW

Gen



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/24/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

Peaking Units Hydroelectric Units MW 0 50 200 250 300 **MW** 0 10 100 150 5 15 20 25 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Aguirre CC STM-1 Dos Bocas 1 Aguirre CC 2-1 RFPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 Garzas 2-1 Aguirre 2-2 Costa Sur 1-1 Patillas 1-1 PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 RFP/ Palo Seco 2-1 Toro Negro 1-3 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 PREPA Palo Seco MP 2 Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 Vega Baja 1-2 Yabucoa 1-1 Yabucoa 1-2 Vieques 1 Viegues 2 Culebra 1 Culebra 2

R

GPR

GPR

GPR

GPR

R

GPR

GPR

GPR

GPR

GPR

GPR

3PR

GPR

Culebra 3 Cambalache 1

Cambalache 2 Cambalache 3 Mayaguez 1A

Mayaguez 1B

Mayaguez 2A Mayaguez 2B

Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B Palo Seco TM 1-4

San Juan TM 1-10

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

19

18

21

22

20

23

н

11 12 13 14 15 16 17

1,500 1,400

00

01 02

03 04 05 06 07 08 09 10



LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/25/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator. AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



Peaking Units Hydroelectric Units MW 0 50 200 250 300 **MW** 0 10 100 150 5 15 20 25 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Aguirre CC 1-4 Caonillas 2-1 Aguirre CC STM-1 Dos Bocas 1 Aguirre CC 2-1 RFPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 Garzas 2-1 Aguirre 2-2 Costa Sur 1-1 Patillas 1-1 PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 Jobos 1-2 Toro Negro 1-1 Toro Negro 1-2

RFP/

PREPA

Toro Negro 1-3

Toro Negro 1-4

Toro Negro 2-1

Yauco 1-1

Yauco 2-1

Yauco 2-2

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>



ONE-WEEK SYSTEM OUTLOOK

н



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/26/2024

Projected System Availability and Reserves



System Availability and Status



Availability and Status as reported by each Generator



						· ·			(Genera)	. ,						
Available Supply	5	101	18	147	86	246	148	153	194	163	477	279	200	330	348	180
Limitations	0	0	3	0	4	4	17	12	25	83	31	111	16	80	12	270
Planned Outages	0	0	4	0	0	0	0	0	0	50	0	0	0	0	0	0
Maintenance Outages	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forced Outages	0	0	14	0	0	0	55	0	42	50	0	176	216	410	280	450
Out-of-Service	0	1	61	0	0	0	0	83	210	246	0	0	170	0	200	0
Installed Capacity	5	102	100	147	90	250	220	248	471	592	508	566	602	820	840	900

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.






LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/





For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

ONE-WEEK SYSTEM OUTLOOK



Load Forecast vs Generation Availability at PEAK HOURS

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/27/2024



System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

25

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR 1 Vieques 2 h Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A

Mayaguez 4B Palo Seco TM 1-4

San Juan TM 1-10

GPR

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

Load Forecast vs Generation Availability at PEAK HOURS 26-Aug to 03-Sep 2024 MW Generation available includes 0% unknown Forced Outages 4100 4000 3900 3800 3700 3600 3500 3400 3300 3200 3100 3000 2900 2800 2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 BASE UNITS 1500 1400 1300 26-Aug 27-Aug 31-Aug 28-Aug 29-Aug 30-Aug 1-Sep 2-Sep 3-Sep Base Units BU + Peakers Genera RESERVE GAP (SOP) Avail. CAP Yesterday 10 Real Load Yesterday - LF Yesterday + 7 Days TOTAL CAP + REQ RES SOP

ONE-WEEK SYSTEM OUTLOOK

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/28/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30



AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILIT

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK

Load Forecast vs Generation Availability at PEAK HOURS 27-Aug to 04-Sep 2024



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/29/2024

Projected System Availability and Reserves



System Availability and Status

Forced Outages

Out-of-Service

□Installed Capacity

мw



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

30



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.



PREVIOUS DAY

н



For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/

ONE-WEEK SYSTEM OUTLOOK



Load Forecast vs Generation Availability at PEAK HOURS

LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

8/30/2024

Projected System Availability and Reserves

2 1 2 5	673	500	Previous Day	8/29/2024
PEAK DEMAND	REQUIRED RESERVES	RESERVES SHORTFALL	Min. Demand 2,396 MW	Time: 11:34 AM
3,208	83	52%	Peak Demand 3,172 MW	Time: 7:41 PM
AVAILABLE SUPPLY	AVAILABLE RESERVES	AVAILABILITY RATE	Total Generation 59.129 MWh	

System Availability and Status



Availability and Status as reported by each Generator

Out-of-Service

□Installed Capacity



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

Limitations Forced Outages Maintenance Outages Planned Outages Available Supply Out-of-Service **Renewable Facilities Baseload Units** MW 0 10 20 30 40 50 60 70 80 **MW** 0 100 400 500 200 300 San Juan CT 5 Oriana San Juan STM 5 San Juan CT 6 Fonroche San Juan STM 6 GPR **AES Ilumina** San Juan 7 San Juan 8 SOLAR San Fermin San Juan 9 San Juan 10 Coto Laurel Palo Seco 1 Palo Seco 2 Horizon GPR Palo Seco 3 Palo Seco 4 Cantera Martino Costa Sur 5 GPR Costa Sur 6 Pattern Aguirre 1 GPR WIND Punta Lima Aguirre 2 ECO 1 Bechara СO ECO 2 ECO STEAM LANDFILL Fajardo AES 1 AES AES 2 Toa Baja

Peaking Units Hydroelectric Units MW 0 100 200 300 **MW** 0 10 50 150 250 5 15 20 Aguirre CC 1-1 Caonillas 1-1 Aguirre CC 1-2 PREPA Caonillas 1-2 Aguirre CC 1-3 Caonillas 2-1 Aguirre CC 1-4 Aguirre CC STM-1 Dos Bocas 1 BR Aguirre CC 2-1 PREPA Dos Bocas 2 Aguirre CC 2-2 Dos Bocas 3 Aguirre CC 2-3 Aguirre CC 2-4 Garzas 1-1 Aguirre CC STM-2 PREPA Garzas 1-2 Aguirre 2-1 GPR Garzas 2-1 Aguirre 2-2 Patillas 1-1 Costa Sur 1-1 GPR PREPA Costa Sur 1-2 Patillas 1-2 Daguao 1-1 GPR Rio Blanco 1-1 PREPA Daguao 1-2 Jobos 1-1 Rio Blanco 1-2 GPR Jobos 1-2 Toro Negro 1-1 Palo Seco 1-1 Toro Negro 1-2 Palo Seco 1-2 DRFPA Toro Negro 1-3 Palo Seco 2-1 Palo Seco 2-2 Toro Negro 1-4 Palo Seco 3-1 Toro Negro 2-1 Palo Seco 3-2 Palo Seco MP 1 Yauco 1-1 GPR Palo Seco MP 2 PREPA Yauco 2-1 Palo Seco MP 3 Yauco 2-2 Vega Baja 1-1 GPR Vega Baia 1-2 Yabucoa 1-1 GPR Yabucoa 1-2 Vieques 1 GPR 1 Vieques 2 h Culebra 1 GPR Culebra 2 Culebra 3 Cambalache 1 GPR Cambalache 2 Cambalache 3 Mayaguez 1A Mayaguez 1B Mayaguez 2A Mayaguez 2B GPR Mayaguez 3A Mayaguez 3B Mayaguez 4A Mayaguez 4B Palo Seco TM 1-4 GPR San Juan TM 1-10



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

Out-of-Service represents units that have been unavailable for a period of 12 months or longer.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/



PREVIOUS DAY



For Real-Time data please visit: <u>https://lumapr.com/resumen-del-sistema/</u>

Load Forecast vs Generation Availability at PEAK HOURS 29-Aug to 06-Sep 2024 MW Generation available includes 0% unknown Forced Outages 4100 4000 3900 3800 3700 3600 3500 3400 3300 3200 3100 3000 2900 2800 2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 BASE UNITS 1500 1400 1300 29-Aug 30-Aug 31-Aug 1-Sep 2-Sep 3-Sep 4-Sep 5-Sep 6-Sep Base Units BU + Peakers Genera RESERVE GAP (SOP) Avail. CAP Yesterday Real Load Yesterday LF Yesterday + 7 Days TOTAL CAP + REQ RES SOP --

ONE-WEEK SYSTEM OUTLOOK

LUMA is not responsible for generation and is providing this report as part of service to our customers. The report shows the availability generation as reported daily by each generator.

8/31/2024





System Availability and Status



Availability and Status as reported by each Generator



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.



30

AVAILABILITY AND STATUS BY UNIT AS REPORTED BY EACH FACILITY



LUMA is not responsible for generation and is providing this report as part of service to our customers.

The report shows the availability generation as reported daily by each generator.

PLANNED AND MAINTENANCE OUTAGES



REFERENCED TERMS:

Peak Demand is the anticipated highest demand at a certain point of the day.

The Required Reserves are determined daily depending on the largest unit in the system.

Available Reserves represent the difference between the total electricity available from the generators and the current electricy demand from customers. Reserve levels can change throughout the day as the available electricity from the generators increases or decreases, or depending on the amount of electricity customers are using. Green indicates the Required Reserves will be met; red indicates the reserves will be below the Required Reserve level.

Reserves Shortfall are the difference between the Required Reserves and the Current Reserves.

Available Supply means the available electricity that will be generated by the generators. The Available Supply shown in the System Availability Graphs do not include Solar, Wind, or Landfill.

Availability Rate is calculated as Available Capacity / Nameplate Capacity, where Nameplate Capacity is the maximum output of a generator as designed by the manufacturer.

Limitations represent the reduction of electricity that can be generated by the generators. These Limitations are established by each generator.

Outages represent the reduction of electricity that can be generated by the generators due to the unavailability of a unit, or various units. These outages can be scheduled or unscheduled.

For Real-Time data please visit: https://lumapr.com/resumen-del-sistema/









Docket Number: GPR-NEPRMI20200001-20241001 In Re: Tarifa permanente de la Autoridad de Energía Eléctrica de Puerto Rico Re: Requerimiento de Información

Genera PR's ("Genera") responsibility is limited to the operation and maintenance of the Legacy Generation Assets, which are PREPA's fossil fuel generation units. Therefore, Genera is not responsible for the administration, operation, and reliability of approximately 40% of the generation production that contribute to the Electric System. If the purpose of this exercise is to assess the reliability and impact of Puerto Rico's generation assets on the Electric Systems (including thermal, hydroelectric, utility-scale renewable, rooftop solar, and others), Genera respectfully suggests that these other operations should be evaluated through questions and discussions during upcoming conferences and hearings.

Genera is not responsible for evaluating or making decisions regarding resource adequacy or dispatch considerations, including considerations for merit order. Additionally, Genera is not responsible for fuel market fluctuations that affect prices. Genera has presented projects to the Energy Bureau that, once completed, will reduce fuel costs by approximately \$72 million annually. Genera understands that these projects are compliant with Puerto Rico's laws, which mandate that units that continue to operate with fossil fuels must operate with natural gas.



<u>GPR-PREB-NEPRMI20200001-20241001-2.1(b)</u>

b. What was the cause for the lack of production from SJCC units 5 and 6 during August 2024?

Response:

San Juan Steam Turbines 5 and 6 had a force outage on June 12, 2024, caused initially by a failure in a transmission line and a failure on the battery banks. Both units stayed offline due to exciter system failure during August 2024.

San Juan Combustion Turbine 6 had a force outage on August 20, 2024, due to a failure on the excitation system. An assessment from the manufacturer was performed and it was recommended to keep the unit on a major maintenance.



GPR-PREB-NEPRMI20200001-20241001-2.1(g)

g. Was any portion of the lack of production from SJCC units 5 and 6 and EcoEléctrica during August 2024 attributable to inadequate maintenance of generation or transmission plant? If so, explain fully and quantify the impact.

Response:

No, it was not due to inadequate maintenance of a generation plant.

Genera's responsibility is limited to the administration and operation of the Legacy Generation Assets, which are the only generation assets administered and operated by Genera. Genera is not the sole producer of generation for the Electric System; other power plants and generation systems inject power through different agreements managed by the T&D System Operator. Furthermore, Genera is not responsible for resource adequacy to supply generation to the Electric System. Thus, the frequency and intensity caused by inadequate generation reserves must be analyzed in a broader manner, including all the generation systems that inject power into the Electric System and not only Genera. An analysis of the system may show that other units were not available during the period subject to PREB's analysis.

Genera does not have access to other generators, which make up ~40% of the energy production, operation and maintenance plans.



GPR-PREB-NEPRMI20200001-20241001-2.1(h)

h. Was any portion of the lower production from the San Juan and Palo Seco TMs during the June through August 2024 period due to not having sufficient fuel available to run those units at optimal economic dispatch? If so, explain fully and quantify the impact.

Response:

The lower production was not due to not having sufficient fuel available.



GPR-PREB-NEPRMI20200001-20241001-2.1(i)

i. Was any portion of the lower production from the San Juan and Palo Seco TMs during the June through August 2024 period due to inadequate maintenance of generation or transmission plant? If so, explain fully and quantify the impact.

Response:

No, it was not due to inadequate maintenance of either of the generation units mentioned above.



<u>GPR-PREB-NEPRMI20200001-20241001-2.2(d)</u>

How much of the \$131.5 million in net increased actual costs above LUMA's forecasted fuel costs for the June through August 2024 period is attributable to having inadequate maintenance on generating units? Explain fully and show the analysis.

Response:

It's important to consider the entire utility energy infrastructure when assessing variance, as the performance of all generation assets, such as PPOAs and rooftop solar, can impact changes in generation injected into the system, forced outages, and other events. Simply attributing variance to the maintenance of the LGA may not accurately capture the full picture. Genera denies that inadequate maintenance was a driver of the variance.



GPR-PREB-NEPRMI20200001-20241001-2.6(c)

c. Does Genera have plans for preventing the frequency and intensity of such situations of having inadequate generation reserves from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.

Response:

Genera's responsibility is limited to the administration and operation of the Legacy Generation Assets, which are the only generation assets administered and operated by Genera. Genera is not the sole producer of generation for the Electric System; other power plants and generation systems inject power through different agreements managed by the T&D System Operator. Furthermore, Genera is not responsible for resource adequacy to supply generation to the Electric System. Thus, the frequency and intensity caused by inadequate generation reserves must be analyzed in a broader manner, including all the generation systems that inject power into the Electric System and not only Genera. An analysis of the system may show that other units were not available during the period subject to PREB's analysis.

The plans that Genera has for the operation and maintenance of the Legacy Generation Assets can be found in Genera's Electric System Grid Stabilization Plan.¹ Genera does not have access to other generators, which make up ~40% of the energy production, operation and maintenance plans.

¹ https://energia.pr.gov/wp-content/uploads/sites/7/2024/07/20240708-MI20240005-MCOy-Sometiendo-Informe-Preliminar-Genera-Anejo-1.pdf



GPR-PREB-NEPRMI20200001-20241001-2.6(d)

d. Does Genera have plans for preventing the frequency and duration of such load shed events from continuing to occur in the future? If not, explain fully why not. If so, please explain fully and provide the plans.

Response:

Please refer to GPR-PREB-NEPRMI20200001-20241001-2.6(c).



GPR-PREB-NEPRMI20200001-20241001-2.7

During the June through August 2024 period was any required maintenance on generating units omitted? If yes, identify the required generating plant maintenance that was omitted during the June through August 2024 period.

Response:

During the June through August 2024 period there was no required maintenance on generating units omitted.


GPR-PREB-NEPRMI20200001-20241001-2.9

For the period October through December 2024, will any required_maintenance on generating units be omitted or postponed? If yes, identify the required generating plant maintenance that could be omitted or postponed during the October through December 2024 period. Also, explain the consequences of omitting or deferring that maintenance and how the analysis of the likely consequences are factoring into the decision-making process.

Response:

For the period of October through December 2024, there will not be any required maintenance on generating units omitted or postponed.



GPR-PREB-NEPRMI20200001-20241001-2.11

For the period October through December 2024, identify and explain all generation plant maintenance that should be undertaken but is not, because of funding limitations.

Response:

There is no generation plant maintenance that will not be undertaken because of funding limitations.

Fuel & Purchased Power Drivers June 2024 – August 2024

Table of Contents

Fuel Expenditures	4
Top Contributors to Fuel Costs Variance	5
Electric Production & Fuel Consumption	6
System Average Heat Rate	7
Hourly System Average Heat Rate	
Cooling Degree Days	9
System Average Fuel Price	10
Purchased Power Generation & Costs	12

Appendix

Performance Snapshot	14
Generation & Fuel Consumption by Plant	15
Formulas to Estimate Contributors to Fuel Cost Variance	16
90-day Generation Portfolio Performance Report	17-26
Forecasted Fuel Expenditures (Placeholder)	27
Historical Fuel Expenditures and Generation (Placeholder)	28



Fuel Costs Drivers June 2024 – August 2024



Fuel expenditures for the past quarter were 25% higher than forecasted mainly driven by higher use of Residual and Diesel and less of Natural Gas



Contributors to FCA

PREPA + Eco Fuel	Forecast	Actual	Variance
Generation [*] (<i>MWh</i>)	4,154,479	4,407,882	6%
Fuel Consumption [*] (<i>MMBtu</i>)	41,476,927	46,409,930	12%
Avg Fuel Cost [*] (<i>\$/MMBtu</i>)	\$12.24	\$13.69	12%
Avg Fuel Cost [*] (<i>\$/MWh</i>)	\$122.23	\$144.10	18%
Fuel Expenditures [*] (<i>Millions of \$</i>)	\$507.8	\$635.2	25%

Methodology

- \succ Fuel Price Forecast variance = Σ Forecasted MMBtu consumption x (Actual \$/MMBtu Forecasted \$/MMBtu)
- ➤ Fuel Mix variance = Forecasted \$/MMBtu x ∑ (Actual MMBtu Forecasted MMBtu)
- Unexplained variance = Unallocated Δ in Fuel Expenditures



* Variables shown include all PREPA facilities, EcoEléctrica fuel portion, and do not include AES nor Renewables. This is done to isolate the FCA contributors from the PPCA ones.

Out of the \$135 mm increased fuel costs from a more expensive fuel mix, these were the top contributors for the quarter:

Contributor to Fuel Cost Variance	Period of Concentration	Estimated Incremental Fuel Costs (\$ millions)
Higher-than-forecast load	June - August	\$25 - \$47
Lower-than-forecast production from San Juan 5,6 mainly due to equipment failure	August	\$9 - \$32
Lower-than-forecast production from EcoEléctrica due to equipment failure	August	\$9 - \$28
Lower-than-forecast production and heat rate variance from SJ & Palo Seco TMs (former FEMA generators)	June - August	\$8 - \$23
Lower-than-forecast production from AES 1 due to implementation of previously deferred annual maintenance outage	June	\$5 - \$23
Lower-than-forecast Natural Gas consumption in Costa Sur – replaced by Residual ¹	June - August	\$21
Diesel consumption in SJCC 5,6	June - August	\$7

> Lack of production will mainly be driven by either by Forced Outages, Limitations, or changes to the Generation Outage Schedule.

¹ Incremental cost of replacing requested N.G. volumes with Residual Fuel Oil – does not reflect any credits from fuel supplier.

Total electric production for the quarter was 4% higher and fuel consumption 9% higher than forecasted, with higher heat rates driving additional fuel consumption



- Record-hot monthly temperatures for the whole quarter contributed to higher-than-forecast generation, prompting increased Diesel usage.
- Lack of expected Natural Gas in Costa Sur mainly through June-July, Forced Outages/Limitations in both EcoEléctrica & SJCC5,6 in August, and lower production from SJ & PS TMs resulted in significant lower Natural Gas generation throughout the quarter which had to be replaced by Residual and Diesel.
- Higher fuel consumption in relation to electric production mainly driven by a significant higher heat rate in August refer to next slide.

Refer to slide #11 for plant view on Forecast vs Actual Generation

The System Average Heat Rate was higher than forecasted throughout the quarter, most significant in August



Contributors to the SAHR	(quarterly	(total)
--------------------------	------------	---------

Plant	Δ % HR	ΔGWh	Δ%GWh	
CCSJ 5,6	25%	-141	-23%	
SJ & PS TMs	12% -125		-17%	
CCAG	6% 131		339%	
Gas Turbines	3%	119	154%	
Eco	1%	-175	-19%	
AES	-1%	-35	-5%	
Aguirre	-2%	55	8%	
Cambalache	-5%	62	188%	
Costa Sur	-7%	216	27%	
Palo Seco	-11%	75	-38%	
SJ 7,9	-12%	186	661%	

- CCSJ5,6 suffered a Forced Outage in August that limited their generating capacity substantially. This, in addition to both Steam Turbines being offline since June, increased their H.R. significantly.
- The overall dispatch of the generating fleet reflected higher use of low efficiency units (i.e., diesel-fueled peakers), and lower use of high efficiency ones (i.e., Ecoeléctrica, CCSJ 5,6).



An hourly view of the System Average Heat Rate reflects a significant higher usage of less efficient units starting late July/early August



Data shown does not include Renewables nor Hydro

Estimated System Gross Thermal Heat Rate =

 \sum (PROMOD Assumed Heat Rate * Actual Gross Generation (MWh)

 \sum Actual Gross Generation (MWh)

Cooling Degree Days for the quarter were 10% higher than forecasted driven by record-hot temperatures, explaining higher generation from the fleet



- Cooling Degree Day (CDD) is a measure of how hot temperature was on a given day.
- CDD is the strongest single predictor electric demand in Puerto Rico.
- Abnormally high temperatures in Puerto Rico – specially during summer – are being recorded since 2023.

*
$$CDD = \left(\frac{T_{MAX} + T_{MIN}}{2}\right) - T_{BASE}$$



The System Average Fuel price for the period was 12% higher than forecasted driven by a more expensive fuel mix



- The System Average Fuel Price (SAFP) will be driven by both the global fuel markets and by how the generation portfolio is dispatched, which contributes to the overall system <u>fuel</u> <u>mix</u>.
- Higher Residual and Diesel from replacing Natural Gas and higher load has a significant impact in how much is paid for fuel on average.

Methodology

- Fuel Price forecast variance = Forecasted % Share x (Actual \$/MMBtu Forecasted \$/MMBtu)
- Fuel Mix variance = Forecasted \$/MMBtu x (Actual % Share Forecasted % Share)
- > Unexplained variance = Unallocated Δ in the SAFP



System Average Fuel Price includes all PREPA facilities, EcoEléctrica fuel portion, and do not include AES, Renewables, nor the FEMA Emergency generators.

Purchased Power Costs Drivers June 2024 – August 2024



Purchased power production for the quarter was 13% and costs 5% below forecasted driven by lower production from EcoEléctrica and AES



- The calculation of the Capacity Payment for Thermal IPPs (AES & Eco) was designed so that lower/higher production "shocks" will be soothed over a 12-month rolling average period given the Equivalent Availability Factor (EAF), explaining the disparity between generation and costs variance for EcoEléctrica.
- EcoEléctrica unit 1 suffered a Forced Outage early August and was out the rest which also took out the steam turbine for half of its available capacity.

Appendix

June 2024 – August 2024 Performance Snapshot (Forecast vs Actual)

Plant	Δ Ge	eneration	Δ Fuel Co	nsumption	Δ	Fuel Price	Exp	Δ Fuel penditures	Sorted by ∆ Fue Expenditures
	%	MWh	%	MMBtu	%	\$/MMBtu	%	\$	
Costa Sur – Residual	220%	445,296	195%	4,534,359	0%	\$0.02	195%	\$69,954,998	
CCAG	339%	131,417	365%	1,682,646	-4%	\$(0.83)	346%	\$32,445,123	
SJ 7,9	661%	186,179	569%	2,004,579	1%	\$0.21	578%	\$31,509,689	
Gas Turbines	154%	118,928	160%	1,427,594	-7%	\$(1.34)	143%	\$25,981,120	
Cambalache	188%	62,343	175%	762,297	-5%	\$(1.08)	160%	\$14,207,301	
CCSJ 5,6 – Diesel	-	58,999	-	654,230	-	-	-	\$13,201,443	
Aguirre	8%	55,440	5%	417,075	3%	\$0.52	9%	\$10,901,168	
CCSJ 5,6 – NG	-32%	(199,962)	-16%	(837,790)	8%	\$0.77	-9%	\$(4,347,786)	
Eco	-19%	(175,198)	-18%	(1,358,647)	-1%	\$(0.09)	-19%	\$(11,711,838)	
Palo Seco	-38%	(75,193)	-45%	(987,412)	0%	\$(0.00)	-45%	\$(15,160,523)	
SJ & PS TM	-17%	(125,214)	-7%	(513,307)	-8%	\$(1.23)	-15%	\$(15,600,402)	
Costa Sur - NG	-38%	(229,633)	-41%	(2,852,620)	-2%	\$(0.13)	-42%	\$(23,954,110)	
AES	-5%	(35,870)	-5%	(425,537)	-	-	-	-	

Lower than forecast production from Eco, SJCC5,6, SJ & PS TMs, and Palo Seco offset increased production from other base load and all peaking units





- Eco1 suffered a F.O. early August taking out the Steam Turbine for half of its capacity – and was out most of the month due to a fault in the output transformer.
- SJCC 5,6 Combustion Turbines suffered several F.O. + limitations during August mainly due to faults from low vacuum & clogged air filters, plus both Steam Turbines were offline since June from a fault in the turbine bearings (increasing H.R. significantly).
- San Juan TM03 has been offline since early June due to a gear box failure.
- Lack of Natural Gas Delivery from Naturgy in Costa Sur mainly in June & July increased reliance on Residual fuel.
- Increased reliance on Diesel-fueled peaking units to meet lack of capacity from some Base Load units + higher customer demand.

Formulas to Estimate Contributor to Fuel Cost Variance

Formula (low to high)
$\Delta MWh * Forecasted \left(PREPA to Diesel AVG \frac{\$}{MWh}\right)$
$\Delta MWh * Forecasted\left(CCSJ5, 6 AVG \frac{\$}{MWh} - \left(PREPA \text{ to Diesel AVG} \frac{\$}{MWh}\right)\right)$
$\Delta MWh * Forecasted \left(EcoEléctrica AVG \frac{\$}{MWh} - \left(PREPA \text{ to Diesel AVG} \frac{\$}{MWh}\right)\right)$
$\Delta MWh * Forecasted \left(SJ & PS TMs AVG \frac{\$}{MWh} - \left(PREPA \text{ to Diesel AVG} \frac{\$}{MWh}\right)\right) + \Delta Heat Rate * Actual MWh$
$\Delta MWh * Forecasted \left(AES \frac{\$}{MWh} - \left(PREPA \text{ to Diesel AVG} \frac{\$}{MWh}\right)\right)$
$\Delta Costa Sur Natural Gas MMBtu * Forecasted (CS Natural Gas \frac{\$}{MMBtu} - CS4 Residual \frac{\$}{MMBtu})$
$\Delta SJCC MMBtu * Forecasted \left(SJCC Natural Gas \frac{\$}{MMBtu} - SJCC Residual \frac{\$}{MMBtu}\right)$
-



Generation Portfolio Performance *Quarter 1 – FY2025*

July 1, 2024 – September 15, 2024

Table of Contents

- Hourly Gross Thermal Generation (MWh)
- Cumulative Base Load & Peaker Thermal Generation (MWh)
- System Gross Thermal Heat Rate (MMBtu/MWh)
- System Average Fuel Price (\$/MWh)
- Fuel Expenditures (\$)

LUMAPR.COM



Thermal generation for the 1st quarter of FY2025 was 5% above forecasted

• Hourly gross generation remained relatively stable, except during Hurricane Ernesto's landfall.





Base Load usage for the 1st quarter of FY2025 was 1% below forecasted

• Multiple trips by baseload units have disrupted the overall generation output during the last weeks of the quarter





Peaker usage for the 1st quarter of FY2025 was 34% above forecasted

• Peaker units has ramped up to address the shortfall in baseload generation





Data shown does includes Palo Seco and San Juan's TM units Data shown does not include Renewables nor Hydro

Diesel usage for the 1st quarter of FY2025 was 316% above forecasted

• The employment of diesel-fueled units has increased to mitigate the trips of baseload units





Thermal average heat rate for the 1st quarter of FY2025 was 5% above forecasted

• Less efficient units have contributed to a higher system average heat rate



Data shown does not include Renewables nor Hydro

Estimated System Gross Thermal Heat Rate =

 \sum (PROMOD Assumed Heat Rate * Actual Gross Generation (MWh)

 \sum Actual Gross Generation (MWh)

System average fuel price for the 1st quarter of FY2025 was 3% above forecasted

• The system average fuel price has increased due to the usage of more expensive units



Data shown does not include Renewables nor Hydro

COM

APR

Σ

Estimated System Average Fuel Cost $\left(\frac{\$}{MWh}\right) = \frac{\sum Estimated Fuel Expenditures (\$)}{\sum Actual Gross Generation (MWh)}$

Fuel expenditures for the 1st quarter of FY2025 were 6% above forecasted

• The increased use of peaker units, combined with baseload unit trips, has driven up fuel expenditures.



Estimated Fuel Expenditures (\$) = \sum (Estimated Fuel Price ($\frac{\$}{MMBtu}$) * \sum (PROMOD Assumed Heat Rate * Actual Gross Generation (MWh))

Data shown does not include Renewables nor Hydro

APPENDIX



Data shown does not include Renewables nor Hydro



LUMAPR.COM

Recent modeling suggests monthly average Fuel Expenditures next quarter will decrease by over 10%





Fuel expenditures this past quarter averaged \$200 mm/month





<u>Exhibit 2</u>

Exhibit 2

Current System Liquidity

On October 1, 2024, the Energy Bureau issued a Resolution and Order (October 1 R&O) directing LUMA to disclose whether it is currently experiencing or may encounter liquidity issues as a result of the decision to keep the existing factors unchanged, or for any other reasons, along with the strategies it is contemplating to address these challenges.¹

Under the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement ("T&D OMA")² and the Puerto Rico Thermal Generation Facilities Operation and Maintenance Agreement ("LGA OMA")³, the Puerto Rico Electric Power Authority (PREPA) must fund the Service Accounts in accordance with the terms and conditions set forth in Section 7.5 of the T&D OMA and Section 7.6 of the LGA OMA, respectively. This funding mechanism was agreed to by all Parties of both Agreements, as well as Financial Oversight and Management Board of Puerto Rico (FOMB) and the government of Puerto Rico, as a Material Obligation to enable LUMA and Genera to comply with their responsibilities as Operators in a manner consistent with Contract Standards and Prudent Utility Practice. The required funding is needed to provide sufficient working capital for fuel purchases, inventory, funding of approved Federal Emergency Management Agency (FEMA) projects, and cash required for approved budgets.

For nearly two years (22 months), PREPA has chronically failed to fully fund the Service Accounts pursuant to their obligations. Starting in December 2022, PREPA began under-funding the Operating Account, Capital Account – Federally Funded, Capital Account – Non-Federally Funded, and the Purchased Power Account each month,⁴ highlighting the necessity for adequate funding of working capital. Additionally, PREPA's bankruptcy,⁵ and its challenges in securing financing have further limited the liquidity of the electric system.

Over the past ten (10) months, PREPA has also failed to replenish the Outage Event Reserve Account⁶, despite its obligation to replenish the account 'promptly'. This lack of replenishment amounts to approximately \$127 million, and as of September 30, 2024, the account reflects a balance of only \$1.6 million. Underfunding of the Outage Event Reserve Account is of particular concern because the account is intended to fund much of the recovery work associated to adverse weather and other emergency events, including Tropical Storm Ernesto.⁷ LUMA has had to withdraw funds from its Operating Account⁸



¹ See page 7 of Resolution and Order of October 1, 2024, Docket No. NEPR-MI-2020-0001.

² Pursuant to Section 7.5 of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement ("T&D OMA") executed on June 22, 2020, amongst the Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A") and LUMA Energy, LLC and LUMA Energy ServCo, LLC (collectively, "LUMA").

³ Pursuant to Section 7.6 of the Puerto Rico Thermal Generation Facilities Operation and Maintenance Agreement ("LGA OMA") executed on January 24, 2023, by and among the Puerto Rico Electric Power Authority ("PREPA"), the Puerto Rico Public-Private Partnerships Authority ("P3A"), and Genera PR LLC ("Genera").

⁴ See section 7.5 of the T&D OMA.

⁵ See Title III case under PROMESA pending for PREPA in the Title III Court, captioned as in *re Financial Oversight & Management Board for Puerto Rico as representative of Puerto Rico Electric Power Authority*, Case No. 17-BK-4780-LTS (D.P.R.).

⁶ See section 7.5(d) of the T&D OMA.

⁷ Id.

⁸ See section 7.5(a) of the T&D OMA.

Exhibit 2

to cover for outage event expenditures, and the lack of funding of the Outage Event Reserve Account means that no monies have been made available to refund the Operating Account.

For the funding cycles beginning in April 2024, PREPA failed to fund the Purchased Power Account⁹ and Fuel Account¹⁰ to even two-thirds of the required amounts. For the funding cycles in August and September 2024, PREPA also failed to fund the LUMA Operating Account and Capital Account – Non-Federally Funded to two-thirds of the required amount, and did not fund the Capital Account – Federally Funded at all. As of September 16, 2024, the Service Accounts were collectively under-funded by approximately \$616 million. Specifically, in September, PREPA funded LUMA's Operating Account to less than 27% of its minimum balance under the T&D OMA, the Capital Account – Non-Federally Funded to less than 61% of its minimum balance, the Purchased Power Account funded to less than 61% of its minimum required balance.

Given the low account balances in the other Service Accounts, on September 27, 2024, after receiving authorization from the Puerto Rico Public-Private Partnerships Authority (P3A), LUMA was forced to withdraw \$30,000,000 from the Contingency Reserve Account¹¹ to fund payments to vendors and service providers.

LUMA notes that it has successfully and consistently operated within its budget, and that there is a need to properly fund working capital. PREPA's bankruptcy¹², including the inability to obtain financing, further constrain the mechanisms available to appropriately fund operation and maintenance activities as well as capital improvements. In light of the above, the inability to fully recover incremental fuel and purchased power costs places additional pressure on the energy system's liquidity position and reduces the cash available to fund operations by approximately \$100 million.

¹⁰ *Id*.



⁹ See section 7.5(e) of the T&D OMA.

¹¹ See 7.5(f) of the T&D OMA.

¹² See Title III case under PROMESA pending for PREPA in the Title III Court, captioned as in re Financial Oversight & Management Board for Puerto Rico as representative of Puerto Rico Electric Power Authority, Case No. 17-BK-4780-LTS (D.P.R.).