

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

NEPR

Received:

Jan 16, 2024

8:28 PM

IN RE:
LUMA'S RESPONSE TO HURRICANE
FIONA

CASE NO. NEPR-MI-2022-0003

**SUBJECT: Second Report on Demobilization of
FEMA Generation**

**MOTION SUBMITTING SECOND REPORT ON DEMOBILIZATION OF FEMA
GENERATION IN COMPLIANCE WITH RESOLUTION AND ORDER DATED
NOVEMBER 14, 2023**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC ("ManagementCo"), and **LUMA Energy ServCo, LLC** ("ServCo"), (jointly referred to as "LUMA"), and respectfully state the following:

1. In a Resolution and Order of October 7, 2022 ("October 7th Order") with the subject "Baseload Generation Dispatch Status-Post Hurricane Fiona," this Honorable Puerto Rico Energy Bureau ("Energy Bureau") convened a Technical Conference to discuss concerns raised by LUMA in a letter dated October 6, 2022, regarding Resource Adequacy and potential Generation resource deficiencies following Hurricane Fiona. Per the October 7th Order, the topics to be discussed at the Technical Conference were "(i) Dispatch Status of the available Baseload Generation post Hurricane Fiona and (ii) the identified temporary emergency mitigation measures thought to address the generation deficiencies arising from Hurricane Fiona."¹

2. On October 12, 2022, the Energy Bureau entered a Resolution and Order whereby it ordered LUMA to develop a stabilization plan as a direct response to Hurricane Fiona, in coordination with the Federal Emergency Management Agency ("FEMA") and the Puerto Rico

¹ The Technical Conference was held as scheduled on October 11, 2022. During the Technical Conference, the Energy Bureau and consultants for the Energy Bureau posed questions to LUMA's representatives.

Electric Power Authority (“PREPA”) “to address any baseload generation inadequacy or shortfall that affects the dispatch availability and has the potential to cause load shedding or a blackout event of the electric system (“Stabilization Plan”)” (“October 12th Order”).

3. Per the October 12th Order, LUMA was directed to submit the 1st and the 15th day of each month from the notice of the Order, an updated report addressing the efforts conducted by LUMA to assure the completion of the Stabilization Plan.

4. On October 31st, 2022, LUMA submitted the First Update on the Stabilization Plan.

5. On November 1, 2022, this Energy Bureau held a technical conference for November 1, 2022 (“October 27th Order”) in connection with the first update on the Stabilization Plan. LUMA representatives appeared to discuss the Stabilization Plan and answered questions from this Energy Bureau.

6. On November 15, 2022, LUMA submitted a Second Update on the Stabilization Plan (“Second Update”). In addition, LUMA submitted supplemental information to the Second Update arising from a joint press conference of November 15th, 2022, where the Governor of Puerto Rico, the Hon. Pedro Pierluisi, and the Federal Coordinator for the Federal Emergency Management Agency (“FEMA”), Nancy Casper, announced that FEMA’s power stabilization initiative aims to install between 600 to 700 MW of temporary emergency generation capacity through the mobilization of power generation maritime barges and temporary land-based generators. *See Supplemental Submission to Second Update on Stabilization Plan to Inform of Announcement by the Puerto Rico Government and FEMA on Temporary Emergency Generation Capacity*, filed on November 15, 2022. LUMA thereafter submitted bi-weekly updates on the progress of the Generation Stabilization Plan. The most recent of these updates was submitted on

November 1st, 2023, and constituted the final update in compliance with the Energy Bureau's October 12th Order.

7. Specifically, updates to the Stabilization Plan were filed on December 1st, 2022 (Third Update), December 15, 2022 (Fourth Update), January 17, 2023 (Fifth Update); January 31, 2023 (Sixth Update); February 15, 2023 (Seventh Update); March 1, 2023 (Eight Update); March 15th (Ninth Update); April 3rd (Tenth Update); April 17th (Eleventh Update); May 1, 2023 (Twelfth Update); May 15, 2023 (Thirteenth Update); June 1st, 2023 (Fourteenth Update); June 15, 2023 (Fifteenth Update); July 3rd, 2023 (Sixteenth Update); July 17th, 2023 (Seventeenth Update); August 1st, 2023 (Eighteenth Update); August 15th, 2023 (Nineteenth Update); September 1st, 2023 (Twentieth Update), September 15, 2023 (Twenty-First Update), October 2nd, 2023 (Twenty-Second Update), October 16, 2023 (Twenty-Third Update) and November 1, 2023 (Twenty-Fourth Update).

8. As informed in its Seventh Update, FEMA reduced the target emergency generation capacity of the Stabilization Plan from 750MW to 350MW. According to LUMA's resource adequate analysis, the new target emergency generation capacity would still significantly reduce the Loss of Load Expectation ("LOLE"). *See*, Seventh Update dated February 15th, 2023.

9. As per the Twenty-Third Update on the Stabilization Plan ("Twenty-Third Update"), the emergency generation resources installed at the San Juan and Palo Seco sites reached the Commercial Operation Date with a total combined baseload capacity of 350 MW. Specifically, the seven gensets installed at the Palo Seco Site reached the Commercial Operation Date on June 7, 2023. The 10 gensets installed at the San Juan site reached the Commercial Operation Date on September 27, 2023.

10. In light of the completion of the construction activities and the achievement of the Commercial Operation Date at both sites, through the Twenty-Third Update, LUMA informed that it would continue to monitor the operation of the installed emergency generation equipment for an additional 15-day cycle, at the conclusion of which LUMA would request that the Energy Bureau deem that it had fully complied with the October 12th Order and to release it from the requirement to file further updates to the Stabilization Plan.

11. Consistent with the foregoing, on November 1, 2023, LUMA submitted its Twenty-Fourth and final update to the Generation Stabilization Plan. As informed in that submission, the emergency generation resources installed at the San Juan and Palo Seco sites maintained a regular operation and averaged a total combined baseload capacity of 355 MW during the period of 15 days following the Twenty-Third Update.

12. Consequently, LUMA requested that the Energy Bureau release it from the requirement to file bi-weekly updates on the Generation Stabilization Report.

13. On November 14th, 2023, the Energy Bureau entered a Resolution and Order that, in its pertinent part, releases LUMA from filing additional bi-weekly reports to the Stabilization Plan. The Energy Bureau nonetheless required LUMA to inform of “any work conducting to the decommission of the 350MW emergency generation resources which shall trigger LUMA to resume the Bi-Weekly reporting requirement.” *See* November 14th Order on page 1.

14. On December 15, 2023, LUMA submitted the First Demobilization Report. *See, Motion Submitting First Decommissioning Report in Compliance with Resolution and Order Dated November 14, 2023, and Request for Extension to File Update to the Report.* LUMA also requested that this Energy Bureau release it from the requirement of filing the Demobilization Report on January 2, 2024, and allow LUMA to file the same by January 15, 2024. *Id.*

15. On December 20, 2023, this Honorable Energy Bureau entered a Resolution and Order granting LUMA leave to file the update on the Demobilization Request on or before January 15, 2024².

16. In compliance with the November 14th Order, LUMA hereby submits as *Exhibit 1*, its Second Report on Demobilization of FEMA Generation (“Second Demobilization Report”). *Exhibit 1* includes a summary of the FEMA Demobilization Plan as well as the impact of said Plan.

17. LUMA respectfully requests that this Energy Bureau take notice of the aforementioned, accept the Second Demobilization Report submitted as *Exhibit 1* to this Motion, and deem that LUMA complied with that portion of the November 14th Order that requires submission of bi-weekly reports on decommissioning of the emergency generation resources.

WHEREFORE, LUMA respectfully requests that this Energy Bureau **take notice** of the aforementioned, **accept** the Second Demobilization Report submitted as *Exhibit 1* to this Motion **deem** that LUMA complied with that portion of the November 14th Order that requires submission of bi-weekly reports on decommissioning of the emergency generation resources.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 16th day of January, 2024

I hereby certify that this motion was filed using the electronic filing system of this Energy Bureau. I also certify that a copy of this motion will be notified to the Puerto Rico Electric Power Authority, through attorney Lionel Santa, Lionel.santa@prepa.pr.gov.

² Pursuant Section 1.09 of the *Regulation on Adjudicative, Notice of Noncompliance, Rate Review and Investigation Proceedings*, Regulation 8543, if a period ends on a legal holiday, said period shall be extended until the next day. Given that on January 15th, the Martin Luther King legal holiday was observed, the time to file the Second Demobilization Plan moves to today, January 16, 2024.



DLA Piper (Puerto Rico) LLC

500 Calle de la Tanca, Suite 401

San Juan, PR 00901-1969

Tel. 787-945-9107

Fax 939-697-6147

/s/ Margarita Mercado Echegaray

Margarita Mercado Echegaray

RUA NÚM. 16,266

margarita.mercado@us.dlapiper.com

/s/ Valeria Belvis Aquino

Valeria Belvis Aquino

Núm. RUA 22584

valeria.belvis@us.dlapiper.com

Exhibit 1
Second Demobilization Report



Generation Stabilization Plan: Demobilization of FEMA Generation Discussion

January 16, 2024

Agenda

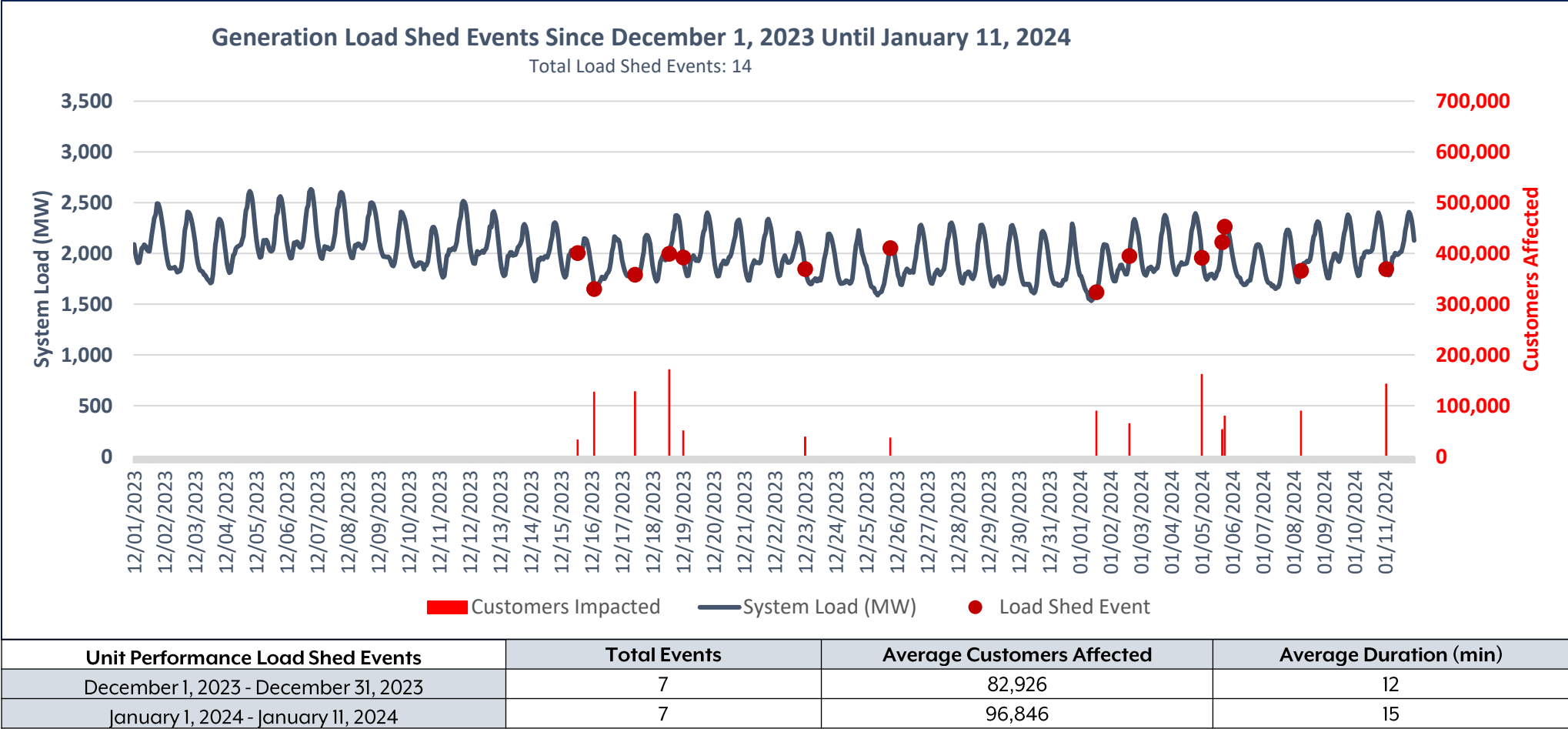
- I. FEMA Generation Demobilization Planning – Summary**
- II. Current Situation**
- III. Impact of FEMA Generation Demobilization**

FEMA Demobilization Planning - Summary

- FEMA Task Force continues to target a demobilization date of 3/15/24
- FEMA demobilization will reduce system generation reserves and substantially increase risk of insufficient generation. Forward-looking analysis shows increased load sheds if the 350 MW of FEMA Generation is disconnected or shutdown from operation.
- Currently there is focus on two main administrative tasks required for demobilization, for which FEMA has requested a "Wrap-up Plan" to be delivered by 2/1/23
 - 1) "Wrap-up" of the Direct Federal Assistance (DFA assignment)
 - This task involves completion of remaining work including demobilization tasks, settlement of procurement orders and inventories, e.g. fuel, and finalizing project payments to USACE
 - 2) "Wrap-up" of the Federal Facility Compliance Act (FFCA requirements)
 - The FFCA close-out requires primarily EPA-related documentation to be collected
- The Task Force was made aware the completion of the Wrap-up tasks may exceed the 3/15/24 demobilization date and include additional costs; which will be noted in the Wrap-Up Plan when delivered.



Current Situation – 14 Load Sheds since 12/1/23

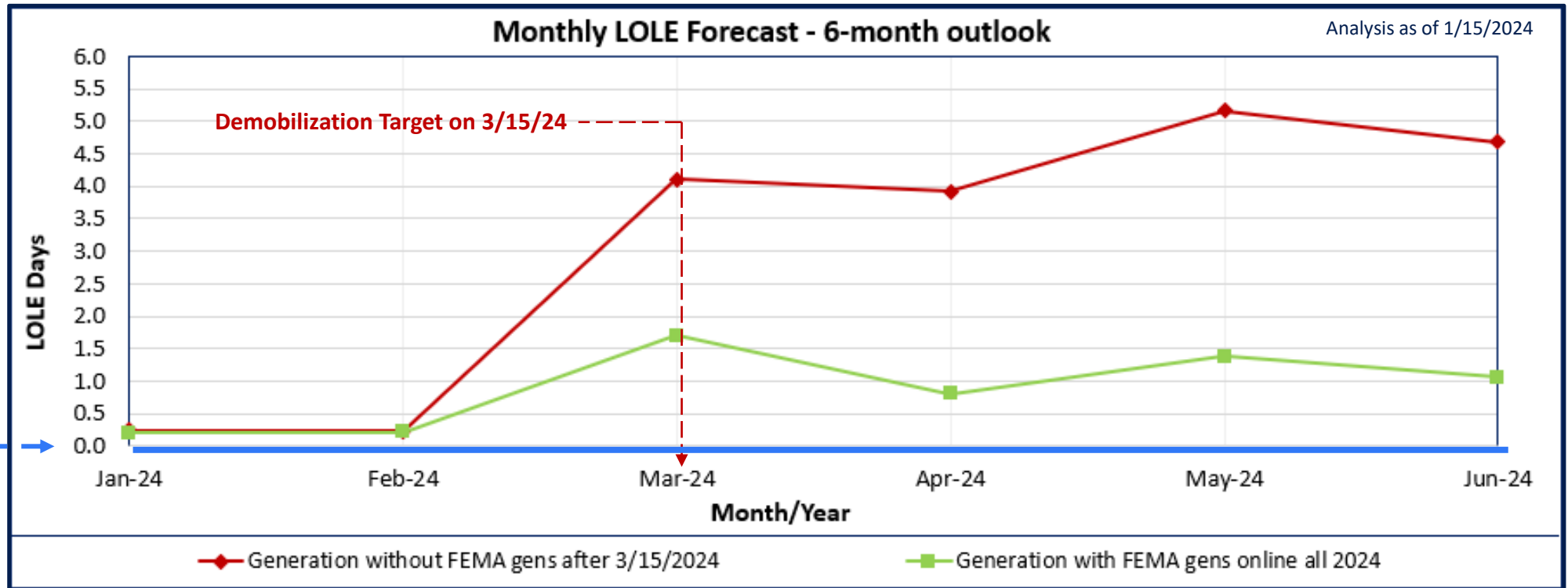


- The 14 load shed events were due to unit performance.



Impact of FEMA Generation Demobilization - Loss of Load Expectations (LOLE) increase without FEMA Generation

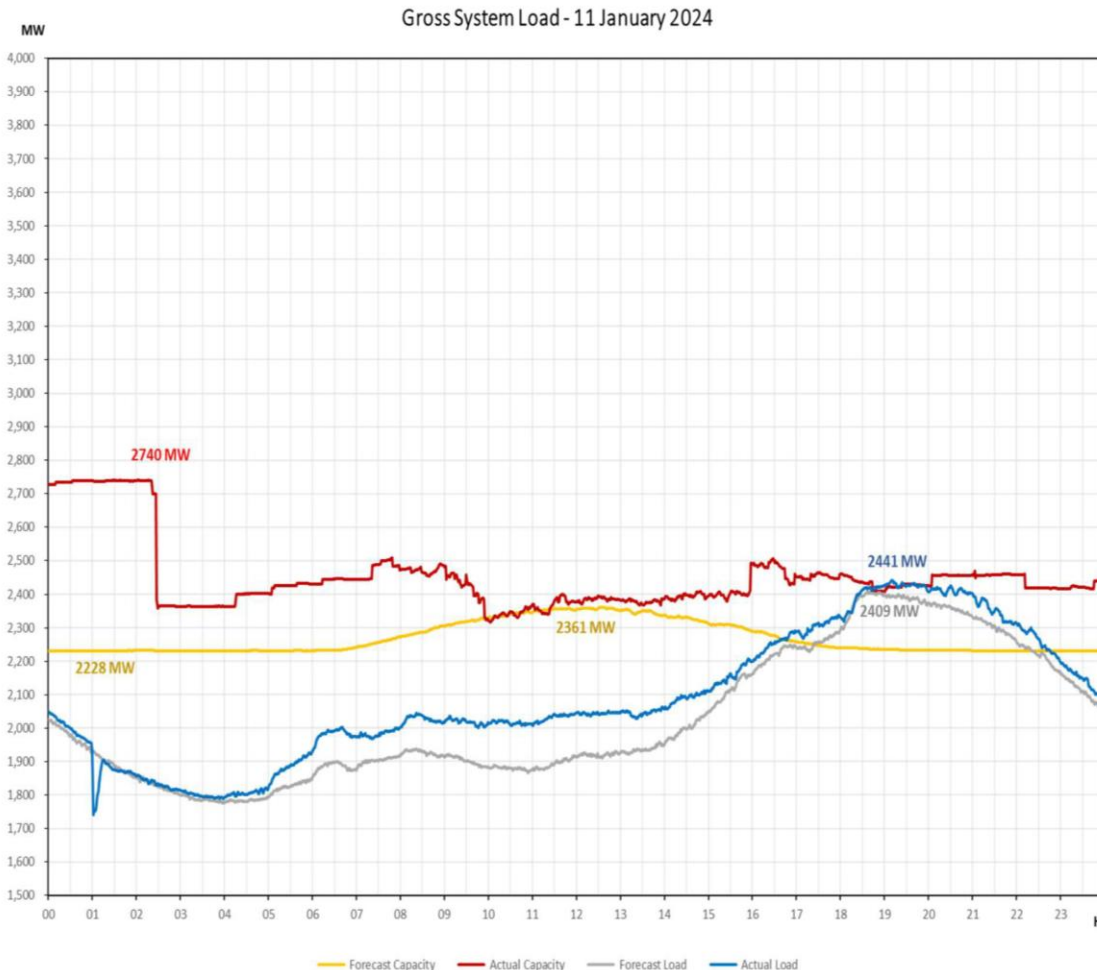
The Utility Industry standard is 0.0083 LOL Days per month



- This provides a 6-month outlook of the LOL expectation assuming the 350 MW FEMA Generation will be disconnected on the targeted demobilization date of 3/15/24
- As presented by the graph, the expectation of monthly load sheds significantly increases after the demobilization, i.e., more than doubles without the FEMA generation
- Even with FEMA Generation the LOLE Expectation is still significantly higher than the industry standard for LOLE, (i.e., 0.0083 LOL Days/month) shown by the gap between the green and blue lines

FEMA emergency generation has reduced load shed events and reduced impact to customers from inadequate reserve margins

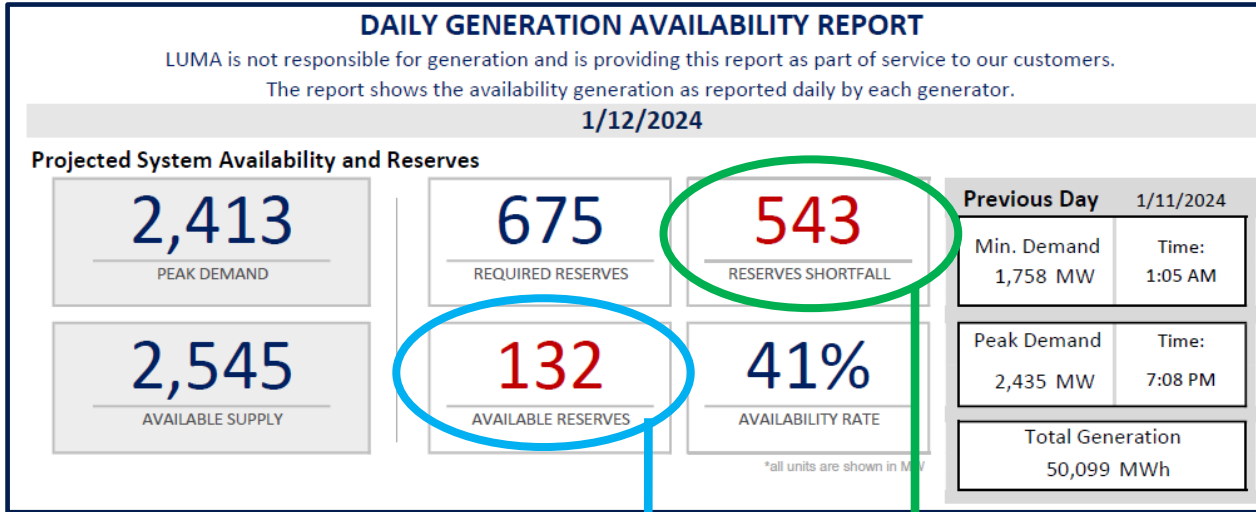
Example of January 11, 2024



- Aguirre 2 (370 MW) tripped off-line at 9:55 am which resulted in projected shortfall (load shed) of 170 MW for the evening (after sun sets and ~220 MW of solar stops generating)
- PS Mobile Generators (81 MW) started to fill emergency need (these are under EPA restriction and can not be operated normally)
- Customer Battery Energy Sharing program participants notified to see if they could provide up to 10 MW that evening
- Started up Vieques and Culebra generators (6 MW)
- Applied targeted voltage reductions to reduce total demand an additional ~20 MW and avoid interrupting customers
- Accelerated the planned restart of AES-1 to provide 20-60 MW in the evening
- AES-2 was limited to 125 MW, but requested them to ramp up and provide another 30-100 MW
- **Result: concerted action by System Operator, efforts from generators contributed to avoiding a load shed and availability of FEMA generation avoided interrupting customers.**
- **But without the 350 MW FEMA units generating, approximately 300,000 customers could have been interrupted for several hours.**

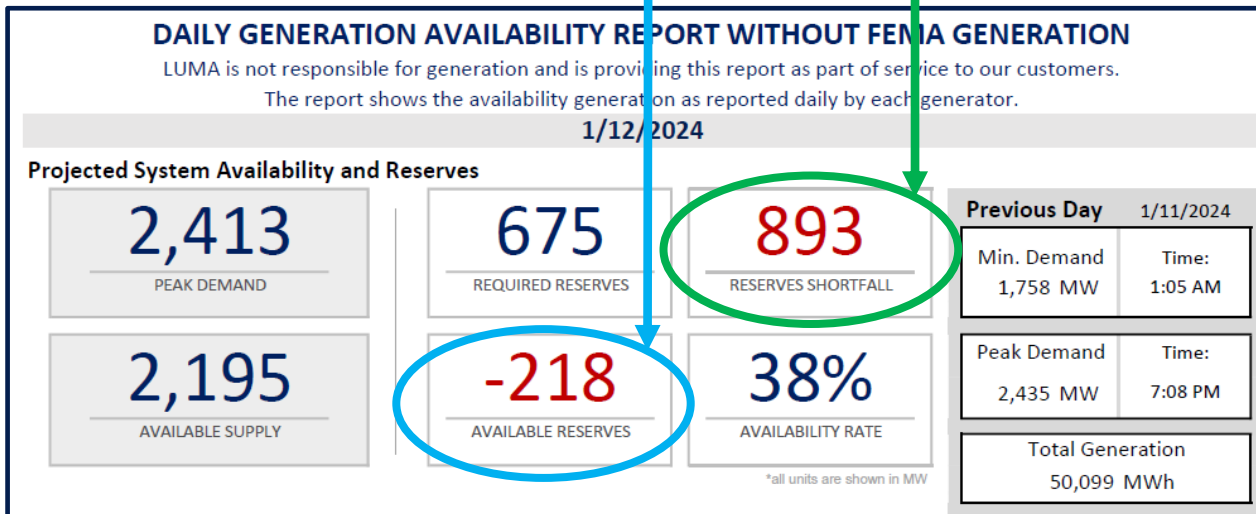
Impact of FEMA Generation Demobilization -

How the daily Generation Availability would have changed on 1/12/24



As an example of the system impact without the FEMA Generation, this is a comparison with and without the FEMA Generation:

<- The image to the left is the actual Daily Generation Availability Report from 1/12/24 With FEMA Generation



<- This image to the left is the same Daily Generation Availability Report from 1/12/24, Without FEMA Generation

A comparison of the upper and lower reports show the **Reserve Shortfall** increases and **Available Reserves** go negative without FEMA Gen.





LUMA

Thank you!