

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

**NEPR**

**Received:**

**Jun 7, 2023**

**10:19 PM**

**IN RE:**

REVIEW OF LUMA'S INITIAL BUDGET

**CASE NO.:** NEPR-MI-2021-0004

**SUBJECT:** Motion Submitting Responses to ROIs in Compliance with May 31 Order.

**MOTION SUBMITTING RESPONSES TO REQUEST FOR INFORMATION IN  
COMPLIANCE WITH MAY 31 ORDER**

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

**COMES NOW GENERA PR, LLC** (“Genera PR”), through its counsel of record, and respectfully state and request the following:

1. On May 16, 2023, LUMA Energy, LLC, and LUMA Energy ServCo, LLC (collectively, “LUMA”) filed a document titled *Submission of Consolidated Annual Budgets for Fiscal Year 2024 and Proposed Annual T&D Projections Through Fiscal Year 2026*, in which, LUMA submitted to the Energy Bureau of the Puerto Rico Public Service Regulatory Board (“Energy Bureau”) the proposed T&D Budgets developed by LUMA, **the proposed GenCo Budgets developed by Genera PR**, and the proposed HydroCo and HoldCo Budgets developed by the Puerto Rico Electric Power Authority (“PREPA”).

2. On May 18, 2023, the Energy Bureau entered a Resolution and Order through which, the Energy Bureau ordered PREPA and Genera PR to provide, through LUMA, the proposed budgets and supporting information that reflect the LUMA Budget Request in Schedule 3.1 “Annual Budget Summary”.

3. On May 23, 2023, this Energy Bureau issued a Resolution and Order with the subject *Second Requirement of Information (“ROI”) - Review of LUMA's Proposed Consolidated FY2024*

*Budgets*. (“May 23 Order”). In its pertinent part, this Energy Bureau ordered LUMA, Genera PR, and PREPA to respond, on or before June 2, 2023, to a Second Requirement of Information (“ROI”) set forth in Attachment A and Attachment B to the May 23 Order.

4. On May 31, 2023, the Energy Bureau entered a Resolution and Order titled “*Third Requirement of Information (“ROI”) – Review of LUMA’s Proposed Consolidated FY 2024 Budgets: GENERA’s Necessary Maintenance Expenses (“NME”)*” (“May 31 Order”) whereby it ordered Genera PR to respond, or before June 7, 2023 at 12:00 p.m., to the ROI set forth in Attachment A to the May 31 Order.

5. On June 7, 2023, Genera PR respectfully submitted an *Urgent Request for Extension of Time to Submit Response In Compliance with Resolution and Order of May 31, 2023*. In the amendment to this submission, Genera PR requested an extension of time until the close of the natural day on June 7, 2023, specifically until 11:59 PM.

6. Genera PR has been diligently working to ensure compliance with the May 31 Order, demonstrating its commitment through the submission of this motion, which contains responses to Requests for Information (ROIs) in accordance with the May 31 Order. However, Genera PR will be seeking an extension to provide its remaining responses for items 18 and 28 related to the NME projects, as well as items 12, 42, and 44 pertaining to the additional NME projects.

7. Considering the above and in compliance to the May 31 Order, Genera PR is herein including its response to the Third ROI, as outlined in Attachment A of the May 31 Order, as *Exhibit I*.

**WHEREFORE**, Genera PR respectfully requests that this Honorable Energy Bureau **take notice** of the above and **deems** Genera PR to be in compliance with the May 31 Order.

**RESPECTFULLY SUBMITTED.**

In San Juan, Puerto Rico, this 7<sup>th</sup> day of June 2023.

**ECIJA SBGB**

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## CERTIFICATE OF SERVICE

We hereby certify that a true and accurate copy of this motion was filed with the Office of the Clerk of the Energy Bureau using its Electronic Filing System and that we will send an electronic copy of this motion to Joannely Marrero-Cruz, at [jmarrero@diazvaz.law](mailto:jmarrero@diazvaz.law); Maralíz Vázquez-Marrero, at [mvazquez@diazvaz.law](mailto:mvazquez@diazvaz.law); Margarita Mercado Echegaray, at [margarita.mercado@us.dlapiper.com](mailto:margarita.mercado@us.dlapiper.com); and Ana Margarita Rodríguez Rivera, at [ana.rodriguezrivera@us.dlapiper.com](mailto:ana.rodriguezrivera@us.dlapiper.com).

In San Juan, Puerto Rico, this 7th day of June 2023

*s/ Jorge Fernández-Reboredo*  
Jorge Fernández-Reboredo

Exhibit I

*Genera PR's Response to PREB's Third ROI*

## Response to GenCo ROIs in compliance with May 31, 2023 Order

### Aguirre Power Plant:

1.

#### Row 3:

- a. Is this activity required every 18 months as part of the requirements of the Consent Decree (between EPA, DOJ, and PREPA) item for environmental compliance?
- b. Considering this unit seems to have been under repair from August 7, 2022, to June 2023 due to the failure of the fans attached to the generator rotor, are any maintenance activities required by the Operation & Preventive Maintenance (O&PM) protocol of the Consent Decree between EPA and PREPA being carried out during the repair?
- c. If activities required by the O&PM protocol are being carried out, explain whether these activities will qualify the unit for an additional 18 months of environmental compliance.

#### GPR – PREB ROI 3 – 05-31 #1

- a. Yes, it is required every eighteen (18) months.
- b. Yes, the environmental maintenance must be on October–December 2024.
- c. The activities qualify for the O&PM protocol and will reset the environmental compliance term.

2.

#### Row 5:

- a. Is this requirement based on new changes and designs to the existing fire protection system to optimize the system or to bring the existing system back into shape without optimization?
- b. Has PREPA developed a Fire Protection Systems Damage Assessment or is it requesting the funds based on requests from insurers and underwriters?

- c. If requesting the funds based on requests from insurers and underwriters, is what are the insurers and underwriters requesting, to keep the existing system in good working condition or specific improvements to the system?
- d. Why does this requirement include design efforts?

**GPR – PREB ROI 3 – 05-31 #2**

- a. The power plant must maintain its detection and response fire suppression system up to the code and standards (optimization).
- b. Although Genera’s priority is to maintain a safe environment during the continuous operation of the legacy generation units, many of the works that will be executed under this NME project are related to requests by the insurance company.
- c. To keep existing systems in good and reliable condition.
- d. Some of these projects require design work, such as the improvements to the water fire suppression system for the Aguirre Power Plant.

3.

**Row 6:**

- a. If this activity is carried out, could GENERA achieve savings by not having to carry out emissions and volatile particulate matter tests quarterly and every year in each of the PREPA units? Refer to the spreadsheet Environmental TAB (Tetrattech Contract).

**GPR – PREB ROI 3 – 05-31 #3**

- a. If this activity is carried out, Genera could achieve savings. Contractors’ mobilization every three months will cost more than CEMS installation. Also, PREPA is currently under an EPA audit in which one of the areas of inquiry is the unavailability of the CEMs.

4.

**Row 7:**

- a. Provide a list of the equipment being considered for replacement or repair during the power plants’ environmental activities and for NPDES and SPCC compliance in the next fiscal year, including a cost estimate breakdown.
- b. Is this estimate of \$1,500,000 based on experiences from earlier years?

**GPR – PREB ROI 3 – 05-31 #4**

- a. Pressure wash cleaning for the boilers. Inspection of burner tips and replacement if necessary. Burner corners tips replacement on AG2.
- b. Yes, the estimate of \$1,500,000 is based on experiences from earlier years.

5.

**Row 14:**

- a. Does this requirement address the condensate polishing system?
- b. Explain how addressing the condensate polishing system may avoid a capacity limitation of the unit.

**GPR – PREB ROI 3 – 05-31 #5**

The description of this project was incorrect. This project is for the replacement of the chimney.

6.

**Row 15:**

- a. How many equivalent operational hours have the mentioned HP and IP rotors accumulated?

**GPR – PREB ROI 3 – 05-31 #6**

- a. AG2 HP and IP 30,996 hours. AG2 LP's 72,640 hours.

7.

**Row 16:**

- a. Were some of these activities performed during the Forced Outage of the Unit between the period of April 27, 2023 to May 22, 2023 (Shutdown to fix the Main Steam Line Crack)?

**GPR – PREB ROI 3 – 05-31 #7**

During the outage period from April 27, 2023, to May 22, 2023, the main focus of the maintenance work was on repairing the cracks in the main steam line and conducting maintenance on the air pre-heaters of Unit 2. Additionally, one specific aspect that required attention was the replacement of burner corner



tips. Unfortunately, during the previous outage, these tips were not available for replacement.

8.

**Row 17:**

- a. Are these activities proposed to replace the flame igniters and/or to install the trifecta valves in the burner corners of the boiler?
- b. Is it recommended to change the existing atomizing steam, air, and fuel valve arrangement by the trifecta system? Explain why.

**GPR – PREB ROI 3 – 05-31 #8**

- a. These activities are proposed to install trifecta valves on the boiler corners.
- b. Yes, it is highly recommended to change the existing atomizing steam, air, and fuel valve arrangement to the trifecta system. The trifecta valves, based on the experience gained from the San Juan and Costa Sur Plants, have proven to be simple and reliable. Aguirre is currently facing issues with the corner valves in their burner system, which includes separate valves for fuel, atomizing steam, air, and scavenge steam.

**San Juan Steam & Combined Cycle**

9.

**Row 8:**

- a. Describe GENERA's maintenance plans for the San Juan 6 steam turbine generator.

**GPR – PREB ROI 3 – 05-31 #9**

- a. The budget assignment of this line is for the Long-Term Service Agreement of the combustion turbine and doesn't include the steam turbine generator maintenance. On the next major maintenance outage programmed for March 2024, Genera will perform a major overhaul to the steam turbine. The scope of work planned is attached for your reference.

10.

**Row 9:**

- a. Describe GENERA's maintenance plans for the San Juan 5 steam turbine generator.

**GPR – PREB ROI 3 – 05-31 #10**

- a. The budget assignment of this line is for the Long-Term Service Agreement of the combustion turbine and does not include the steam turbine Generator maintenance. Unit 5 steam turbine received a complete overhaul on the last major repair outage of the unit, performed in 2022.

11.

**Row 11:**

- a. When was the last time a battery discharge test was performed on this battery bank?
- b. What type of battery technology is being considered?
- c. How does the proposed battery bank comply with environmental requirements?

**GPR – PREB ROI 3 – 05-31 #11**

- a. The last test was performed in December 2022.
- b. The battery technology considered is the same as the existing one installed on the unit, Lead-Acid Flooded Tubular Plate Batteries.
- c. As per scope of work and technical specifications, the batteries will be located in the interior of an enclosed battery cabinet with louvers and exhaust vent fans for ventilation in seismic battery racks. Batteries shall be designed, manufactured, tested and installed in accordance with the latest standards from: IEEE, ISA, ANSI, NEMA, UL, BCI, ANSI C2, NFPA, EPA, OSHO, ASCE, ASTM, ICBO, NEC, Puerto Rico Electric Code and the best practice followed in the electrical and electronics industry.

**Mayaguez Power Plant**

12.

**Row 24:**

- a. Describe the plant capacity limitations resulting from the current demineralized water production.

**GPR – PREB ROI 3 – 05-31 #12**

- a. 240 gal/min. GenCo has a Demi Water Tank of 500,000 gal.

13.

**Row 25:**

- a. Describe the suggested OEM inspection interval schedule.
- b. When was the last time this inspection took place?
  - i. How many operating hours were recorded at that time?
- c. Describe any work arising from the last inspection.
- d. How many hours has this unit being operating since the last inspection?

**GPR – PREB ROI 3 – 05-31 #13**

- a. The Hot Gas Inspection is done every 12,500 hrs.
- b. These two units need to be inspected between this year and the next.
- c. None have had the Hot Gas Inspection done.
- d. Unit 4A has 12,256 hrs. and Unit 3A has 12,995 hrs.

14.

**Row 26:**

- a. Submit the contract scope of work and its detailed activities.

**GPR – PREB ROI 3 – 05-31 #14**

- a. Although there is not a contract in place at this moment, there are several important activities that will be performed once the contract is executed. These include borescope inspection, major generator inspection, hot section parts repair, synchronous condensing upgrade project, and fuel nozzle repair.

**Palo Seco Power Plant**

15.

**Row 29:**

a. Provide a detailed breakdown for the requested budget.

**GPR – PREB ROI 3 – 05-31 #15**

a. Boiler condition assessment performed on Palo Seco Unit 4 on March 2022 revealed some indications inside the secondary superheater header SH-5. The recommendation is to operate the boiler for two more years with this condition. The quotation to buy a replacement header is as follow:

- SH-5 material replacement- \$728,000
- SH-5 header installation- \$1,515,385

Header replacement will be considered for FY25.

16.

**Row 31:**

- a. Describe whether this proposed project can be funded through the Clean Water State Revolving Fund (CWSRF-EPA).
- i. What is the status of PREPA's request for DRNA Wastewater Treatment Plant improvements funds for the Palo Seco Power Plant?

**GPR – PREB ROI 3 – 05-31 #16**

a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

17.

**Row 32:**

- a. When was the last time a battery discharge test was performed on this battery bank?
- b. What type of battery technology is being considered?
- c. How does the battery bank comply with environmental requirements?

**GPR – PREB ROI 3 – 05-31 #17**

- a. February 17, 2022
- b. SBS STT series STT2V2500, flooded lead Selenium acid batteries.
- c. These kinds of batteries comply with IEEE Standards. Management of the removal and installation of batteries will be performed following all environmental and safety standards. Old batteries will be recycled. Also, the battery bank is installed on proper racks inside a dike in the battery room of Unit 3 and 4.

18.

**Row 35:**

- a. Describe whether this proposed project can be funded through the Clean Water State Revolving Fund (CWSRF-EPA).
  - i. What is the status of PREPA's request for DRNA Wastewater Treatment Plant improvements funds for the Palo Seco Power Plant?
- b. Describe what preventive measures GENERA is planning to undertake to manage the (1) seasonal sargassum and (2) trash carried by the Bayamo n river.

**GPR – PREB ROI 3 – 05-31 #18**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.
- b. To enhance operational oversight and effectively monitor the seasonal influx of sargassum and trash carried by the Bayamón River, Genera plans to implement advanced monitoring systems, which will include expanding the closed-circuit television (CCTV) cameras to the area. These cameras will play a pivotal role in providing the operator with improved control and a comprehensive view of the river's condition.

By deploying CCTV cameras strategically, Genera aims to enhance situational awareness and gain real-time insights into the movement and accumulation of sargassum and debris. This visual monitoring capability will enable the operator to promptly detect and respond to any potential issues, ensuring a proactive approach to addressing environmental concerns.

19.

**Row 36:**

a. Describe GENERA's parts inventory efforts related to this proposed activity.

**GPR – PREB ROI 3 – 05-31 #19**

a. Genera PR contracted PIC Group Inc. to make an evaluation of necessary spare parts to carry out maintenance of units during the next fiscal year. The evaluation was performed considering the following types of maintenance:

- Critical spare parts
- Schedule outage
- Daily spare parts

This assessment is being made in compliance with the OMA. The assessment includes all power plants, including Palo Seco. The report based on the assessment was submitted to P3A and is currently under review.

**Peakers (CTs) – Hydrogas Division: (Gas Turbines Peakers)**

20.

**Row 37:**

a. Describe the suggested OEM inspection interval schedule.

b. When was the last time this inspection took place?

i. How many operating hours were recorded at that time?

c. Describe any work arising from the last inspection.

d. How many hours have these units being operating since the last inspection?

**GPR – PREB ROI 3 – 05-31 #20**

a. OEM suggested inspection interval schedule is based on equivalent operating hours. Every 4,000 EOH a Minor combustion inspection is performed. Every 16,000 EOH a Major inspection is carried out that includes replacement of related parts in the hot gas path, services, repairs, Technical Field Advisors services and supervision, site, and shop repairs.

b. Last time inspection took place:

- GT1 last Mayor inspection was July-September 2010
- GT2 last Mayor inspection was April-June 2022

- GT3 last Mayor inspection was October–December 2020
  - i. How many operating hours were recorded at that time?
    - GT1 14,614 EOH
    - GT2 16,035 EOH
    - GT3 16,837 EOH
- c. Work arising from the last inspection:
  - Recover GT1 after a combustion failure (Sept. 2011) for increase Generation Capacity
  - Perform C Mayor Inspection on GT2 and a series of maintenance works and inspections required for the GT performance and reliability improvement. Guarantee the GT life extension. Rotor Life Management, Generator Mayor Inspection (rotor-out), Performance Test & Emission Test. Year 2024 (depend on usage)
  - Perform C Mayor Inspection on GT3 and a series of maintenance works and inspections required for the GT performance and reliability improvement. Guarantee the GT life extension. Rotor Life Management, Generator Mayor Inspection (rotor-out), Performance & Emission Test. It is scheduled for October 2<sup>nd</sup>, 2023.
- d. Hours these units have been operating since the last inspection:
  - GT1 has 1,376 EOH since the last inspection.
  - GT2 has 6,749 EOH since the last inspection.
  - GT3 has 15,804 EOH since the last inspection.

**TAB: Genera Additional NME****All Power and Gas Plants**

21.

**Row 3:**

- a. Describe whether the water tanks are proposed for new construction or repair of existing infrastructure. If new construction, provide justification.

**GPR – PREB ROI 3 – 05-31 #21**

- a. This is a blanket project that is typically used for the repair of raw water, water retention, clarifier, condensate and hot recovery tanks and improvements to tank dikes. Possible components of tanks that would require to be repaired are tank manholes, cathodic protection systems, tank stairs, interior and/or exterior coatings, nozzles, etc. Also, exterior and interior surface preparation and coating application is necessary and essential as part of the repair works. Those repairs are based on inspection reports in compliance with API – 653 Standard. For example, some of the tanks that will require repair works during the next fiscal year are:
  - Nautilus Water Clarifier Tank, Water Treatment Plant, San Juan Power Plant
  - Water Retention Tank 1, Water Treatment Plant, Aguirre Power Plant
  - Water Retention Tank 1, Water Treatment Plant, Aguirre Power Plant
  - Hot Recovery Tank 1, Palo Seco Power Plant

22.

**Row 4:**

- a. Provide a budget breakdown of the proposed activities identifying which generating plants will be affected.

**GPR – PREB ROI 3 – 05-31 #22** – See attached.



23.

**Row 5:**

- a. Describe how the proposed budget will cover all the necessary fuel tanks (Service and Storage).
- b. Describe how the Clean Water State Revolving Fund (CWSRF), under the Spill Preventive, Control, and Countermeasure Program (SPCC), could cover some of these activities.
- c. Describe how GENERA is prioritizing the tanks repair.

**GPR – PREB ROI 3 – 05-31 #23**

- a. The budget for this project is a blanket to provide repair and improvement works on fuel tanks and dikes. The intention is to maintain this project every year on the future NMEs with an amount that will allow the necessary work to ensure the safe and reliable operation of this tank in compliance with SPCC and OPA regulations.
- b. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project under the submitted category.
- c. This is a blanket project that is typically used for the repair of fuel tanks and improvements to fuel tank dikes. Possible components of tanks that would require to be repaired are tank manholes, cathodic protection systems, tank stairs, interior and/or exterior coatings, nozzles, fuel level systems, etc. These repairs are based on inspection reports prepared by API – 653. For example, for the diesel fuel service tanks for units 5 and 6 of the San Juan Power Plant a recent technical report indicates that some small repairs are due in some of the accessories of the tanks, such as manholes and valves. Also, it requires the surface preparation and application of new epoxy coating on exterior shells and roofs of tanks. This project would be funded through this blanket NME project.

At this time our technical personnel is performing the following inspections for fuel tanks.

- Palo Seco No. 6 Fuel R-4 Tank
- Palo Seco No. 6 Fuel S-2 Tank
- Mayaguez No. 2 S-1 Tank
- Mayaguez No. 2 S-2 Tank
- Mayaguez No. 2 S-3 Tank
- Cambalache Diesel Tank No. 1

Genera will review the assessments once finalized and will make any changes to the current plans if necessary. Although the priorities by Genera will be based on the findings of the API-653 inspections and recommendation of the tank list previously mentioned, the first tanks to be worked on will be the San Juan 5 and 6 Fuel Service Tanks.

24.

**Row 6:**

- a. Describe how GENERA has evaluated the existing vehicle fleet and efforts to move acceptable vehicles between plants.
- b. Describe whether the proposed vehicle acquisition contemplates the procurement of electric vehicles and electrification of the transportation fleet.

**GPR – PREB ROI 3 – 05-31 #24**

Genera's budget proposal to purchase additional vehicles is based on a revision of PREPA's proposal. The evaluation of the existing vehicle fleet is being done as part of a joint effort between multiple parties to identify assets that will be separated into different PREPA subsidiaries. At this moment, Genera is revising proposals for the segregation of the generation vehicle fleet into HydroCo and GenCo. Once this separation is completed, Genera will have a clear understanding of the number of vehicles assigned to its operation by GenCo and the real necessities of the fleet. Nevertheless, even though at this moment Genera doesn't have a clear understanding in terms of quantity of vehicles, Genera understood that proposing a budget to replace part of the existing vehicle fleet is warranted. This decision was made after extensive conversations that have taken place between Genera and PREPA personnel during the Mobilization Period. PREPA power plant personnel have repeatedly stated the necessity to augment the vehicle fleet to improve the transportation

of employees, materials and repair crews amongst sites. This will allow faster response time to unforeseen events, mainly in the aftermath of disasters.

25.

**Row 7:**

- a. When was the last time a battery discharge test was performed on the battery banks?
- b. What type of battery technology is being considered?
  - i. Describe any consideration to replace flooded type cells with a different technology.
- c. How does the battery bank comply with environmental requirements?

**GPR – PREB ROI 3 – 05-31 #25**

- a. The last test in Aguirre was performed in December 2022.
- b. The battery technology considered in this case is the same as the existing one installed on the unit, lead-acid flooded tubular plate batteries.
- c. As per scope of work and technical specifications, the batteries will be located in the interior of an enclosed battery cabinet with louvers and exhaust vent fans for ventilation in seismic battery racks. Batteries shall be designed, manufactured, tested and installed in accordance with the latest standards from: IEEE, ISA, ANSI, NEMA, UL, BCI, ANSI C2, NFPA, EPA, OSHO, ASCE, ASTM, ICBO, NEC, Puerto Rico Electric Code and the best practice followed in the electrical and electronics industry.

26.

**Row 9:**

- a. Much of the infrastructure damage is related to Hurricanes Irma, María, and Fiona and the 2020 earthquakes. Is this damage covered by FEMA obligations?
- b. Describe whether this activity could span multiple fiscal years, and what level of funding is recommended for FY 2024.

**GPR – PREB ROI 3 – 05-31 #26**

These small buildings on the Palo Seco and Aguirre legacy generation sites require improvement works besides any damages caused by past hurricanes and earthquakes. It is crucial to understand that when it comes to FEMA providing coverage for damages caused by hurricanes or earthquakes, the approval process can often be lengthy, sometimes taking years. Furthermore, the amount approved by FEMA is occasionally based on their own estimates, which may fall short of the final contracting costs determined through competitive procurement processes.

27.

**Row 10:**

- a. Describe whether this activity could span multiple fiscal years, and what level of funding is recommended for FY 2024.

**GPR – PREB ROI 3 – 05-31 #27**

PREPA is separating many of its functions and responsibilities into subsidiaries. However, its systems are integrated and have not been separated from each other. As part of the transformation, these systems need to be separated. This blanket would provide funding for this division, and at the same time guarantee the IT/OT and related services for GenCo. This project could span several years, nevertheless, it is dependent on the transition of shared services.

28.

**Row 11:**

- a. Describe whether this activity could span multiple fiscal years, and what level of funding is recommended for FY 2024.

**GPR – PREB ROI 3 – 05-31 #28**

PREPA is separating many of its functions and responsibilities into subsidiaries. However, its systems are integrated and have not been separated from each other. As part of the transformation, these systems

need to be separated. This blanket would provide funding for this division, and at the same time guarantee security services for GenCo. This project could span several years, nevertheless, it is dependent on the transition of shared services.

### San Juan Steam and Combined Cycle Plant

29.

#### Row 13:

- a. Describe whether the description in Column E regarding the New Fortress LNG delivery contract relates to the proposed Fuel Oil tanks dikes improvements activities.
- b. Describe whether GENERA has evaluated the possibility of employing the Clean Water State Revolving Fund (CWSRF), under the Spill Preventive, Control and Countermeasure Program (SPCC), to cover all or a part of this activity.
- c. Is the Liner Rehabilitation activity related to Hurricanes Irma/Marí a/ Fiona?
  - i. If yes, is FEMA funding this project?
  - l. If yes, has PREPA submitted the claim for this repair?

#### GPR – PREB ROI 3 – 05-31 #29

- a. Colum E description was provided by PREPA. Colum F includes Genera's revised description.
- b. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.
- c. The power plant has not submitted any reports of damage to the liners caused by any passed hurricanes or tropical storms. The condition of the liner system on both tanks appears to be related to typical degradation of the liner material and requires repair or replacement work.

30.

**Row 18:**

- a. Describe whether this requested budget can be sourced instead from the CWSRF approved Project of the San Juan Treatment Plan Improvements.

**GPR – PREB ROI 3 – 05-31 #30**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

31.

**Row 19:**

- a. Describe whether this requested budget can be sourced instead from the CWSRF approved Project of the San Juan Treatment Plan Improvements.

**GPR – PREB ROI 3 – 05-31 #31**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

32.

**Row 20:**

- a. Describe what capacity limitations will result if this activity is not completed.

**GPR – PREB ROI 3 – 05-31 #32**

If the water feed pump is in bad condition it could limit the capacity by 25% to 50%. If the induced fans and forced fans activities are not completed, this could result in a limitation of 50% of the capacity.

## Aguirre Power Plant

33.

### Row 22:

- a. Describe whether a spare rotor exists at Aguirre. i. If yes, explain the need to procure a new rotor.

### GPR – PREB ROI 3 – 05-31 #33

- a. Yes, it exists. It must be repaired to become available.

34.

### Row 24:

- a. Describe whether both Aguirre Units are relying on the battery bank of Unit 1.
- b. What will happen to the operation of Units 1 and 2 if a failure occurs on the operational battery bank?

### GPR – PREB ROI 3 – 05-31 #34

- a. The capacity of the Aguirre 2 battery bank is currently in poor condition, as it experiences rapid depletion of its charge.
- b. Units can go out of service due to protection system activation.

35.

### Row 25:

- a. Describe whether this requested budget amount can be sourced instead from the CWSRF approved Project of the Aguirre Advance Treatment Plan Improvements.

### GPR – PREB ROI 3 – 05-31 #35

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

36.

**Row 26:**

- a. Describe whether this requested budget amount can be sourced instead from the CWSRF approved Project of the Aguirre Advance Treatment Plan Improvements.

**GPR – PREB ROI 3 – 05-31 #36**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

37.

**Row 27:**

- a. Describe whether this requested budget amount can be sourced instead from the CWSRF approved Project of the Aguirre Advance Treatment Plan Improvements.

**GPR – PREB ROI 3 – 05-31 #37**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

38.

**Row 28:**

- a. Describe whether this requested budget amount can be sourced instead from funds for pier improvements under the US Coast Guard's Port Security Grant Program.

**GPR – PREB ROI 3 – 05-31 #38**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be



identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

39.

**Row 29:**

- a. Specify the "other components" required for replacement.

**GPR – PREB ROI 3 – 05-31 #39**

- a. See GPR – PREB ROI 3 – 05-31 #32

40.

**Row 30:**

- a. Describe whether this requested budget amount can be sourced instead from funds for pier improvements under the US Coast Guard's Port Security Grant Program.

**GPR – PREB ROI 3 – 05-31 #40**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

41.

**Row 31:**

- a. Describe the system impact of delaying this activity to FY 2025.

**GPR – PREB ROI 3 – 05-31 #41**

The critical path of this activity is the lead time. Typically, when an order is placed, a deposit must be paid. The arrival of the parts may take 42 weeks or more. After that, there is an additional time consideration for the installation.

42.

**Row 32:**

- a. Describe whether this motor is interchangeable between the Aguirre Steam Plant motor driven boiler feed pump (MDBFP) and Costa Sur MDBFP.
- b. Describe the reliability impact of completing this activity.

**GPR – PREB ROI 3 – 05-31 #42**

- a. This motor is interchangeable between the Aguirre Steam Plant motor driven boiler feed pump (MDBFP) and Costa Sur MDBFP.
- b. Failing to complete the critical motor acquisition for the motor-driven boiler feed pumps poses a significant risk of losing a substantial portion of the capacity in these plants. Specifically, the potential loss amounts to up to 50% of the capacity, which corresponds to a significant capacity of 200MW to 225 MW.

43.

**Row 33:**

- a. Describe whether this Project can be funded by the Clean Water State Revolving Fund (CWSRF-EPA); PREPA approved project for Section 316 (b) of the Clean Water Act compliance for the Aguirre Power Complex. b. Describe what preventive measures GENERA is planning to undertake to manage the seasonal sargassum.

**GPR – PREB ROI 3 – 05-31 #43**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

44.

**Row 34:**

- a. Describe whether this activity could span multiple fiscal years, and what level of funding is recommended for FY 2024.

**GPR – PREB ROI 3 – 05-31 #44**

- a. Given the scope and timeline of this activity, it is anticipated that it will span multiple fiscal years. Therefore, it is recommended to allocate the entire budgeted amount of \$4,000,000 for FY2024, ensuring continued funding to support the project's progress and successful completion.

45.

**Row 35:**

- a. Describe whether this activity could span multiple fiscal years, and what level of funding is recommended for FY 2024.

**GPR – PREB ROI 3 – 05-31 #45**

- a. Given the scope and timeline of this activity, it is anticipated that it will span multiple fiscal years. Therefore, it is recommended to allocate the entire budgeted amount of \$ 1,250,000 for FY2024, ensuring continued funding to support the project's progress and successful completion.

46.

**Row 37:**

- a. Describe whether this requested budget amount can be sourced instead from the CWSRF approved Project of the Aguirre Cooling Water Structure Improvements under the EPA's National Pollutants Discharge Elimination System (NPDES) Program.

**GPR – PREB ROI 3 – 05-31 #46**

- a. Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

47.

**Row 38:**

- a. Describe the system impact of deferring improvements to the Equalization tank & Nautilus water tank.

**GPR – PREB ROI 3 – 05-31 #47**

Can be deferring but no more than one fiscal year. Some patches and repairs have been done to leave usable.

**Mayaguez Power Plant**

48.

**Row 43:**

- a. Describe whether GENERA has sought Clean Water State Revolving Funds (CWSRF), under the Spill Preventive, Control and Countermeasure Program (SPCC) for this activity.
- b. Describe the expected timeframe for completing this activity.

**GPR – PREB ROI 3 – 05-31 #48**

Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

49.

**Row 44:**

- a. Describe the system impact of not carrying out this activity and potential mitigation measures that could be pursued instead.

**GPR – PREB ROI 3 – 05-31 #49**

The aeroderivative improvement of Mayaguez is essential for ensuring capacity after natural disasters. Failure to carry out this activity and implement appropriate would result in insufficient power supply when it is most needed. To mitigate this risk, it is crucial to enhance the aeroderivative system in Mayaguez by implementing upgrades, maintenance, and modernization projects. It is worth noting that a few days after Hurricane Maria, while the rest of the island did not have power, the Mayaguez units were returned to service and used to provide load to the adjacent customers.

## Costa Sur Power Plant

50.

### Row 45:

a. Noting that as part of the Hurricane Fiona FEMA mission, the system will benefit from the capacity of temporary emergency generators, describe whether Aguirre Unit 2 can be under repair when one unit from Costa Sur is also out for repairs.

i. If 350MVA of temporary emergency generation is available, how many major generating units could be out for maintenance without having to rely on load shedding and customer interruption during a contingency event? Explain your reasoning.

ii. If 700MVA of temporary emergency generation is available, how many major generating units could be out for maintenance without having to rely on load shedding and customer interruption during a contingency event? Explain your reasoning.

b. Describe the system impact of delaying this activity.

### GPR – PREB ROI 3 – 05-31 #50

a. No, the current power generation capacity of Costa Sur Unit 5 is 200 MW, while Aguirre Unit 1 generates 450 MW. If both of these units are taken out of service, it would create a total deficit of 650 MW. Consequently, the Electrical System would experience a reduction of 300 MW.

b. Postponing this activity would have significant consequences on the commencement of a crucial turbine major inspection for Unit 6. This is due to the unavailability of the HP/IP/LP spare rotors needed, leading to a substantial delay in the project timeline from 75 days to approximately 10-12 months. Additionally, in the event of a major failure of any existing component within the power turbines of Unit 5 or 6, the situation would exacerbate further. Furthermore, the delay in this activity would ripple through the maintenance of the Generation Fleet, potentially causing non-compliance with the agreement by Consent Decree between PREPA and the EPA.

## Palo Seco Power Plant

51.

### Row 46:

- a. Describe whether this Project can be funded by the Clean Water State Revolving Fund (CWSRF-EPA).
- b. Describe the status of PREPA's request to DRNA for Wastewater Treatment Plant improvements funds for the Palo Seco Power Plant.

### GPR – PREB ROI 3 – 05-31 #51

Genera has evaluated this possibility and has presented a written request to the DNRA regarding this and other similar projects. Should the funds be identified, Genera will perform the projects with those funds. In the meantime, Genera requests that PREB maintain this project in the submitted category.

<b>ANNEX 1 - Breakdown of Proposed Activities (Boiler Structures and Stacks Coating Application)</b>	
<b>Palo Seco Power Plant</b>	<b>Cost</b>
a) Unit 3 Chimney Coating Application	\$ 58,200.00
b) Unit 4 Chimney Coating Application	\$ 58,200.00
c) Unit 3 Boiler Superstructure Beams and Columns Coating Application	\$ 475,000.00
d) Unit 3 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 75,000.00
e) Unit 4 Boiler Superstructure Beams and Columns Coating Application	\$ 475,000.00
f) Unit 4 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 75,000.00
	<b>\$ 1,216,400.00</b>
<b>San Juan Power Plant</b>	<b>Cost</b>
a) Unit 7 Chimney Coating Application	\$ 54,900.00
b) Unit 9 Chimney Coating Application	\$ 54,900.00
c) Unit 7 Boiler Superstructure Beams and Columns Coating Application	\$ 325,000.00
d) Unit 7 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 50,000.00
e) Unit 9 Boiler Superstructure Beams and Columns Coating Application	\$ 325,000.00
f) Unit 9 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 50,000.00
	<b>\$ 859,800.00</b>
<b>Aguirre Power Plant</b>	<b>Cost</b>
a) Unit 1 Chimney Coating Application	\$ 75,100.00
b) Unit 2 Chimney Coating Application	\$ 75,100.00
c) Unit 1 Boiler Superstructure Beams and Columns Coating Application	\$ 625,000.00
d) Unit 1 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 85,000.00
e) Unit 2 Boiler Superstructure Beams and Columns Coating Application	\$ 625,000.00
f) Unit 2 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 85,000.00
	<b>\$ 1,570,200.00</b>
<b>Costa Sur Power Plant</b>	<b>Cost</b>
a) Unit 5 Chimney Coating Application	\$ 75,100.00
b) Unit 6 Chimney Coating Application	\$ 75,100.00
c) Unit 5 Boiler Superstructure Beams and Columns Coating Application	\$ 625,000.00
d) Unit 5 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 85,000.00
e) Unit 6 Boiler Superstructure Beams and Columns Coating Application	\$ 625,000.00
f) Unit 6 Boiler Superstructure Stairs and Other Metal Miscellaneous Components Coating Application	\$ 85,000.00
	<b>\$ 1,570,200.00</b>
	<b>Project Total \$ 5,216,600.00</b>
	<b>Budget for FY 24 \$ 3,600,000.00</b>
	Budget for FY 25 \$ 1,616,600.00

**Schedule of Works FY 24**

Palo Seco Unit 3 - September, 2023 - January, 2024	
Palo Seco Unit 4 - November, 2023 - March, 2024	\$ 1,216,400.00

Costa Sur Unit 5 - October, 2023 - March, 2024	
Costa Sur Unit 6 - November, 2023 - April, 2024	\$ 1,570,200.00

San Juan Unit 7 - February, 2024 - June, 2024	
San Juan Unit 9 - March, 2024 - July, 2024	\$ 813,400.00

**Schedule of Works FY 25**

San Juan Unit 9 - July, 2024 (Completion of Unit 9 Coating Work)	
	\$ 46,400.00

Aguirre Unit 1 - July, 2024 - December, 2024	
Aguirre Unit 2 - October, 2024 - March, 2025	\$ 1,570,200.00