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

IN RE: MAINTENANCE AND REPAIR MANAGEMENT OF THE GENERATION UNITS OF THE PUERTO RICO ELECTRIC POWER AUTHORITY

CASE NO.: NEPR-MI-2021-0014

**SUBJECT:** Determination on GENERA's Proposed Consumables, Spare Parts, and Capital Spare Parts Listing.

#### **RESOLUTION AND ORDER**

#### I. Background

On June 16, 2023, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order ("June 16 Resolution"), whereby, it stated that in accordance with its statutory authority and duty to the people of Puerto Rico, it established this docket to remain informed as to the operating state of the Electric Power System and for filing of material related to the maintenance and repair of the Puerto Rico Electric Power Authority's ("PREPA") generation fleet. The Energy Bureau noted the obligations of Genera PR LLC ("Genera" or "Operator") pursuant to Section 4.2 of the Genera OMA¹ to report on the available inventory of Consumables, Spare Parts, and Capital Spare Parts for each Legacy Generation Asset which could be used for offsetting other costs and expenses. The Energy Bureau also ordered Genera to file, in this docket, its June 1, 2023 Recommendation Letter and any future submission of recommendations required by Generation OMA Section 4.2(j) concurrently with the same submission timelines established in that section.

SM

The Genera OMA requires at Section 4.2 (j):

Jul

(i)

Consumables. Spare Parts and Capital Spare Parts. Promptly (and in any event within sixty (60) days) following the Effective Date, and in accordance with the Mobilization Plan, Operator shall review the inventory of Consumables, Spare Parts and Capital Spare Parts for each Legacy Generation Asset and submit to Administrator and PREB (with copy to Owner), for their review and approval, a recommendation in consultation with the original equipment manufacturers of any additional Consumables, Spare Parts and Capital Spare Parts necessary to provide Operator with a supply of such Consumables, Spare Parts and Capital Spare Parts to allow Operator to comply with its obligations under this Agreement for twelve (12) months following the Service Commencement Date (with any modifications deemed to be appropriate by Administrator). During the twelve (12) months following the Service Commencement Date, in the event that, following review of the inventory of Consumables, Spare Parts and Capital Spare Parts for a Legacy Generation Asset, Operator determines that additional Consumables, Spare Parts and Capital Spare Parts are necessary to allow Operator to comply with its obligations under this Agreement for the remainder of such twelve (12) month period, Operator may submit to Administrator and PREB (with copy to Owner), for their review and approval, a revision to the initial approved recommendation. After such twelve (12) month period, it shall be Operator's responsibility to procure any additional, necessary

<sup>1</sup> Puerto Rico Thermal Generation Facilities Operation and Maintenance Agreement date January 24, 2023 by and among The Puerto Rico Electric Power Authority – PREPA-GENCO, LLC as Owner, The Puerto Rico Public-Private Partnership Authority as Administrator, and Genera PR, LLC as Operator ("Genera OMA")

ODEENER

Consumables and Spare Parts, and any additional, necessary Capital Spare Parts in accordance with Section 5.6 (Capital Spare Parts and Capital Improvements), in each case in accordance with the then approved Operating Budget.

On June 19, 2023, Genera filed a document titled *Motion to Submit Genera PR LLC's Recommendation Letter in Compliance with the June 16, 2023 Order* ("June 19 Motion"), through which, it submitted the Recommendation Letter as Exhibit A to the June 19 Motion.

On June 30, 2023, the Energy Bureau issued a Resolution and Order titled *Genera Consumables, Spare Parts, and Capital Spare Parts Listing* ("June 30 Order"), whereby it conditionally approved Genera's initial assessment of the inventory of Consumables, Spare Parts, and Capital Spare Parts at the legacy generation sites as presented in the June 19 Motion, subject to Genera's updating its revised assessment incorporating the revisions required in Attachment A.

#

On July 26, 2023, Genera filed a document titled *Motion to Request Comments on Genera's Preliminary Response to the June 30, 2023, Order* ("July 26 Motion"), through which, it filed preliminary responses to Attachment A of the June 30 Resolution and requested "the Energy Bureau's comments and recommendations to ensure that Genera's forthcoming submission of the final version of the revised assessment of Consumables, Spare Parts, and Capital Spare Parts is aligned with the Energy Bureau's revision stipulations outlined in the June 30 Order." Genera, in the July 26 Motion, Exhibit A, titled, GPR – PREB Order – Consumables, Spare parts, and Capital Spare Parts Inventory, responded to comments from the Energy Bureau.

Sign

On September 29, 2023, Genera filed a document titled, *Motion to Inform Genera's Compliance Efforts and Request for Feedback on Responses submitted on July 26, 2023, Motion to Request Comments and Approval on Genera's Preliminary Response to the June 30, 2023 Order* ("September 29 Motion"), through which, it explained that it could best provide comprehensive and completed assessment of the inventory of consumables, Spare Parts, and Capital Spare Parts with input from the Energy Bureau. Genera requested that the Energy Bureau provide feedback and recommendations on the preliminary responses submitted by Genera in Exhibit A of the July 26 Motion.

On November 29, 2023, the Energy Bureau issued a Resolution and Order ("November 29 Resolution"), whereby, it determined that Genera's responses to the revisions required in Attachment A of the June 30 Resolution were satisfactory, except for a noted exception. The Energy Bureau ordered Genera to file the final version of the revised assessment of Consumables, Spare Parts, and Capital Spare Parts, addressing and incorporating the Energy Bureau's required modification, within fifteen (15) days.

On December 12, 2023, Genera filed a document titled, *Motion to Submit Amended Response to Resolution and Order Dated November 29. 2023* ("December 12 Motion"), through which, Genera submitted a revised assessment of Consumables, Spart Parts, and Capital Spare Parts, pursuant to the Energy Bureau's November 29 Resolution. Genera stated that the purpose for the December 12 Motion was to provide additional information, important to the requirement in the Energy Bureau's November 29 Resolution, which Genera did not include in a motion it filed earlier that day. Through the earlier motion, Genera first submitted a revised assessment of Consumables, Spare Parts, and Capital Spare Parts, as Exhibit A. Through the December 12 Motion, Genera added pages 4 through 6 to the earlier motion.

an gru

<sup>&</sup>lt;sup>2</sup> See, In re: Manejo del Mantenimiento y Reparaciones de las Unidades de Generación Utilizadas por la Autoridad de Energía Eléctrica de Puerto Rico para Suplir Servicio Eléctrico, Caso Núm.: NEPR-MI-2021-0014, Motion to Request Comments on Genera's Preliminary Response to the June 30, 2023, filed by Genera on July 26, 2023 ("July 26 Motion").

The Energy Bureau will reference in this Resolution and Order, the December 12 Motion, containing Appendix A consisting of six (6) pages.

# II. Analysis and Discussion

Under the Genera OMA, Genera must report to the Energy Bureau for review and approval, Genera's recommendation regarding Consumables, Spare Parts, and Capital Spare Parts. The Energy Bureau reviewed the preliminary submissions by Genera and determined Genera's responses<sup>3</sup> to the revisions required in Attachment A of the June 30 Order to be satisfactory, with an exception relating to providing the specific quantities that Genera considers low stock for each critical and major part, for which the Energy Bureau provided the direction regarding the revisions the Energy Bureau identified as necessary.<sup>4</sup>



In the December 12 Motion, Genera provided a revised Assessment of Consumables, Spare Parts, and Capital Spare Parts in compliance with the revisions identified by the Energy Bureau. The Energy Bureau reviewed the revisions Genera in the December 12 Motion and finds they satisfactorily reflect the Energy Bureau's direction, subject to robust reporting requirements listed in Attachment A to this Resolution and Order.



#### III. Conclusion



The Energy Bureau **APPROVES** the final version of the revised assessment of Consumables, Spare Parts, and Capital Spare Parts <u>subject</u> to the **Quarterly Reporting Requirements** established in **Attachment A** of this Resolution and Order. The foregoing Quarterly Reports are to be filed within 45 days after the end of each quarter, to begin with Q3 FY 2024 (First Report is due May 15, 2024) and continue until further notice.

The Energy Bureau WARNS GENERA that:

- noncompliance with this Resolution and Order, regulations and/or applicable laws may carry the imposition of fines and administrative sanctions of up to \$25,000 per day;
- (ii) any person who intentionally violates Act 57-2014, as amended, by omitting, disregarding, or refusing to obey, observe, and comply with any rule or decision of the Energy Bureau shall be punished by a fine of not less than five hundred dollars (\$500) nor over five thousand dollars (\$5,000) at the discretion of the Energy Bureau; and
- (iii) for any recurrence of non-compliance or violation, the established penalty shall increase to a fine of not less than ten thousand dollars (\$10,000) nor greater than twenty thousand dollars (\$20,000), at the discretion of the Energy Bureau.

Be it notified and published.



<sup>&</sup>lt;sup>3</sup> See, July 26 Motion, Exhibit A

 $<sup>^4</sup>$  November 29 Resolution, pp. 1 – 2.

Edison Avilés Deliz Chairman

Lillian Mateo Santos Associate Commissioner Ferdir and A. Ramos Soegaard Associate Commissioner

Sylvia B. Ugarte Araujo Associate Commissioner

Antonio Torres Miranda Associate Commissioner

#### **CERTIFICATION**

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on February 24, 2024. I also certify that on February 2024 a copy of this Resolution and Order was notified by electronic mail to lionel.santa@prepa.com, margarita.mercado@us.dlapiper.com, jfr@sbgblaw.com; alopez@sbgblaw.com; legal@genera-pr.com; regulatory@genera-pr.com. I also certify that on February 24, 2024, I proceeded with the filing of the Resolution and Order issued by the Puerto Rico Energy Bureau.

For the record, I sign this in San Juan, Puerto Rico, on February 26, 2024.

Sonia Seda Gaztambide Clerk

NEPA

#### ATTACHMENT A

#### **Reporting Requirements**

Reports are to be filed within 45 days after the end of each quarter. Reporting is to begin with Q3 FY 2024 and continue until further notice.

#### I. Planned Maintenance and Critical Component Replacement Program

- 1. Report on Genera's progress in achieving the Expected Results of Forced Outage Reduction: 32% to 15% as stated in the document titled, *Generation Fleet Outage Schedule Planned Maintenance and Critical Component Replacement Program.*<sup>1</sup>
- 2. Report on Genera's progress in achieving the Expected Results Increase in availability: 17% = 340 MW as stated in the document titled, *Generation Fleet Outage Schedule Planned Maintenance and Critical Component Replacement Program.*<sup>2</sup>
- 3. Report on Genera's success in accurately predicting and achieving scheduled Regular Maintenance Program timeframes and durations as stated in the document titled, *Generation Fleet Outage Schedule Planned Maintenance and Critical Component Replacement Program.*<sup>3</sup> Specify the reasons causing any deviation to the established Planned Maintenance and Critical Component Replacement Program schedule.
- 4. Report on Genera's success in accurately predicting and achieving scheduled Critical Component Replacement Program timeframes and durations as stated in the document titled, *Generation Fleet Outage Schedule Planned Maintenance and Critical Component Replacement Program.*4 Specify the reasons causing any deviation to the established Planned Maintenance and Critical Component Replacement Program schedule.
- 5. Report on incidents of unplanned outages in Genera's Generation Fleet, including reason for outage, duration of outage, generation plant unit experiencing the outage, and how the duration of the outage was affected by availability or unavailability of Consumables, Spare Parts, and Capital Spare Parts.

#### II. Consumables Spare Parts and Capital Spare Parts Inventory<sup>5</sup>

## C1. Genera Supply Chain

Detail and quantify the results of Genera's Supply Chain strategy used to achieve priority changes and improve warehouse operations and control of spare parts, consumables, and equipment inventory, reflecting Prudent Utility Practice, using the "lean" and "agile" systems identified in Genera's July 26 Motion, Appendix A.

# C2. Reliability Centered Management Program

Detail the status of the development and implementation of Genera's Reliability Centered Management Program and Genera's success in accurate scheduling and tracking programs to manage inventory for the three identified major elements

<sup>&</sup>lt;sup>1</sup> See, In re: Review of LUMA's Initial Budget, Case No.: NEPR-MI-2021-0004, Motion Submitting Information in Compliance with Resolution and Orders dated June 25, 2023, and July 14, 2023, Annex F filed by Genera on July 25, 2023.

<sup>&</sup>lt;sup>2</sup> *Id*.

 $<sup>^3</sup>$  Id.

<sup>&</sup>lt;sup>4</sup> *Id*.

<sup>&</sup>lt;sup>5</sup> In re: Manejo del Mantenimiento y Reparación de las Unidades de Generacion Utilizadas por la Autoridad de Energía Eléctrica de Puerto Rico para Suplir Servicio Eléctrico, Caso Núm.: NEPR-MI-2021-0014, Exhibit A, Correspond with the Comments Numbered 1 – 19 (C1 – C19) in GPR-PREB-Order-Consumables-Spare-Parts-and-Capital-Spare-Parts-Inventory-06.30, filed by Genera on July 26, 2023 as supplemented by Genera's responses to C18 in its December 12 Motion.

of Preventive Maintenance, Predictive Maintenance, and Corrective Maintenance.

# C3. Managing Obsolete Parts

Detail Genera's success in managing obsolete spare parts in the short, medium, and long term based on the following timeframe:

#### a. 6 months

- i. Status of the detailed inventory audit.
- ii. Status of the plan to eliminate redundancies, cancel standing orders, return, well or write off obsolete spare parts and equipment.

#### b. 12 - 24 months

- i. Division of warehouse inventory into the identified categories
- ii. Tracking and monitoring the proper demand forecasting tool for spare parts, equipment, and consumables.
- iii. Implementation of automatic requisitions when the minimum quantity is reached.

#### c. Replacement Parts

- i. Assessment and identification of replacement parts and development of procurement plan with existing suppliers.
- ii. Process of seeking alternative parts and suppliers for existing replacement parts.
- d. Identify and quantify the space and cost savings for all categories.

#### C4. Obtaining Best Part Price

Report on Genera's success in obtaining the best part price through competitive bidding and achievement of the goals of "best quality part fit" and "best part price" through the network source process.

#### C5. Spares Quality Assurance Program

- a. Detail and quantify the status of development and implementation and results of the Purchased Material Inspection (PMI) program for spare parts.
- b. Detail and quantify the status of linking PMI to computerized maintenance management system (CMMS) and effectiveness in achieving stated results.

# C6. Warehouse Management Software

- a. Detail and quantify Genera's implementation and use of a Computerized Maintenance Management System (CMMS) or Enterprise Asset Management (EAM) to optimize and integrate the maintenance operations of the power facilities.
- b. Report on the status of Genera's assessment of technology to use after December 31, 2023 when the shared services agreement including Asset Suite ends.

# C9. Critical parts

- a. Report on the status and success of Genera's plans to expedite orders for critical parts with quantity 0.
- b. Identify any critical parts with quantity 0, status of obtaining those parts and of making sure such situations are reduced or eliminated.

# C10. Major and Minor Parts with quantity 0.

a. Report on the status and success of Genera's plans to expedite orders for major and Minor Parts with quantity 0.

b. Identify any Major and Minor Parts with quantity 0, status of obtaining those parts and of making sure such situations are reduced or eliminated.

## C11. Plan to address shortage of critical parts

- a. Report on the status and success of Genera's plans to address shortage of critical parts requiring long lead times.
- b. Report on the status and accuracy of projected timelines and cost estimates.
- c. Describe the effectiveness of procurement procedures.

#### C12. Procurement of spare parts with long lead times

- a. Report on the status and accuracy of identifying long lead time spares.
- b. Report on the status, details, and effectiveness of multi-faceted approach for:
  - i. Long term agreements
  - ii. Make and hold
  - iii. Blanket PO
  - iv. Vendor-managed inventory
  - v. Consignment stocking

# C13. Synchronization of spare parts inventory with legacy power plants' repair schedules

- a. Report on the status of the Unit Maintenance Plan for Boilers and Turbo-Generators being coordinated with LUMA.
  - i. Provide reasons for any maintenance delays and describe mitigating measures identified to reduce future and shorten existing delays.
- b. Report on accuracy of work packages including availability of parts, equipment, and design among the other designated components.

# C14. Verification of spare part quantities as compared with inventory list

a. Report on the status and accuracy of the extensive inventory audit at all facilities.

#### C15. Incomplete inventory information

a. Report on the status of eliminating current and future instances of missing information for critical and major items for Unit Cost, Quantity in Stock, Required Quantities and Total Cost.

#### C16. Critical items out of stock

#### Provide status on:

- a. Eliminating instances of critical items out of stock
- b. Actual impact of critical items out of stock on the repair schedule and stabilization of units.
- c. Evaluation of replacement equipment and alternative parts supplies.
- d. Planned outage scopes of work, resource mapping, and risks that could affect the reliable operation of the fleet power plants.

# C17. Genera's plan in the event of generating plant critical turbine failure

Report on the readiness of Genera according to its plan in the event of critical turbine failure at any of the fleet power plants, including how any shortage or unavailability of critical parts that require long lead times is being addressed.



# C18. Benchmarks for Critical Spare Parts

- a. Report on Genera's success in developing and meeting benchmarks for availability of critical spare parts.
- b. Report on effectiveness and accuracy of Genera's process for determining whether inventory of critical and major parts is low and making sure adequate quantities are in place.

