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

IN RE: PLAN PRIORITARIO PARA LA ESTABILIZACIÓN DE LA RED ELÉCTRICA

**SUBJECT:** Request for Expedited Approval of

**CASE NO.:** NEPR-MI-2024-0005]

Emergency Generation Capacity Solutions

# REQUEST FOR EXPEDITED APPROVAL OF EMERGENCY GENERATION CAPACITY SOLUTIONS

### TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW GENERA PR LLC ("Genera"), as agent of the Puerto Rico Electric Power Authority ("PREPA"), through its counsels of record, and respectfully submits and prays as follows:

## I. INTRODUCTION

- 1. Genera respectfully presents this urgent request for approval before the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") with a deep sense of urgency and a plea for swift, decisive intervention. Puerto Rico's power system is in a state of crisis due to its outdated infrastructure, which has suffered from years of neglect, inadequate maintenance, and insufficient investment. The fragility of the electrical grid has resulted in frequent service disruptions, heightened vulnerability to extreme weather events, and an overall decline in system reliability. The people of Puerto Rico continue to endure blackouts and instability, hampering economic activity and diminishing quality of life. These systemic deficiencies have reached a critical juncture, necessitating immediate action to prevent further deterioration and to lay foundation for a more resilient and sustainable energy future.
- 2. Genera has been working restlessly to modernize Puerto Rico's electrical infrastructure through strategic projects aimed at enhancing reliability and efficiency. Among these

initiatives, the Battery Energy Storage System ("BESS") and Peaker units projects represent a significant step toward stabilizing the grid and ensuring adequate power supply during peak demand periods. However, while these solutions promise meaningful improvements, their implementation requires considerable time and coordination. We also expect them to face enormous challenges due to supply chain limitations worldwide. Given the urgent nature of Puerto Rico's power crisis, an immediate solution is imperative to bridge the gap until these critical infrastructure updates are fully operational.

- 3. The urgency of the situation has been dramatically exacerbated by the unforeseen catastrophic failure of Unit 1 of the Aguirre Power Plant ("Aguirre Unit 1"). Historically, Aguirre Unit 1 has been an indispensable cornerstone of Puerto Rico's power generation framework, but it is also an outdated machine that is currently above its service life. Its outage represents far more than a routine operational disturbance; it constitutes a serious threat to the reliability and stability of the entire grid. At present, the loss of Aguirre Unit 1 has resulted in an approximate shortfall of 300 MW of generation capacity, severely straining the system at a time when peak demand is rising with the onset of the summer season. This deficit heightens the risk of cascading failures, undue strain on other generating units, and an increased likelihood of rolling blackouts.
- 4. Also, Costa Sur Unit 5 is in urgent need of a planned outage to perform important repairs. If these repairs are not performed, this unit will be at risk of suffering major damages and will represent an additional shortfall to the already limited generation capacity.
- 5. Without immediate and comprehensive remedial measures, the stability of Puerto Rico's electrical infrastructure is in peril. The current generation deficit jeopardizes not only the reliable delivery of electricity across the island but also the broader socio-economic foundation that hinges upon a steady and adequate power supply. Thus, the outage of Aguirre Unit 1 transcends

technical complications and directly implicates vital public safety, economic security, and the overall quality of life in Puerto Rico.

- 6. In light of these urgent circumstances, Genera is proposing three options for temporary generation that will allow for critical maintenance to be performed on existing power plants while stabilizing the grid in the short term. Also, the proposed measures will guarantee system stability while recovery projects are performed, such as the BESS and Peakers projects. The proposed options by Genera include one and/or a combination of the following measures:
  - a. installing additional Temporary Mobile Generators of approximately 800MW for 18 months;
  - b. substituting damaged units with pre-owned but functional generating units;
  - c. deploying generation barges to supplement the power supply.
- 7. Genera urgently petitions the Energy Bureau to acknowledge the severity of the crisis caused by the loss of Aguirre Unit 1, the critical repairs required for Costa Sur Unit 5, and the broader vulnerabilities of Puerto Rico's power system. The potential consequences are both imminent and deeply concerning, calling for swift, resolute, and impactful action. Genera therefore requests that the Energy Bureau prioritize this matter and grant prompt consideration and approval of the remedial strategies outlined herein. Any delay in addressing this urgent situation risks compounding the threat to the power system and significantly complicates the eventual path to recovery.

#### II. PROPOSED SOLUTIONS

1. In response to the severe outage at Aguirre Unit 1, which has led to a pronounced capacity shortage within Puerto Rico's electrical system, the urgent repairs needed over Costa Sur Unit 5, and the so needed reconstruction projects, Genera proposes a comprehensive, multipronged

plan to restore and reinforce the grid's reliability. These solutions, which require urgent review and approval from the Energy Bureau, are designed to address the immediate generation shortfall while also mitigating the long-term risks associated with an aging and unreliable infrastructure.

# A. Installation of Additional Incremental Capacity

- 1. Genera advocates for the targeted deployment of approximately 800 MW of Temporary Mobile Generation ("TMs") at six strategic interconnection points to optimize load distribution and stabilize the grid. This initiative aligns with the public policy directives outlined by Governor Jennifer González-Colon, who has emphasized the urgent need for federal assistance to bolster Puerto Rico's power capacity. In a letter dated January 6, 2025, addressed to U.S. Secretary of Energy Jennifer Granholm and the Federal Emergency Management Agency ("FEMA") Administrator Deanne Criswell, Governor González-Colón highlighted the island's precarious grid conditions and the necessity of temporary generation solutions. *See*, Exhibit A. Governor González-Colón urged FEMA and the U.S. Army Corps of Engineers to coordinate efforts in securing an additional 565 MW of power to mitigate rolling blackouts and ensure the continued operation of critical services, including healthcare and public safety. With the event suffered in Aguirre Unit 1, the additional generation need augmented to approximately 800MW.
- 2. Genera's proposal aligns with these objectives and supports Puerto Rico's broader energy security goals. The installation of the additional TM's will provide a vital buffer against generation shortages and contribute to the long-term modernization of the island's power infrastructure. The strategic interconnection locations are the following<sup>1</sup>:
  - i. Transformador Aguirre 1 450 MW

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<sup>&</sup>lt;sup>1</sup> These interconnection points can be used while BESS and Peakers projects are finalized and commissioned. Once the new generation from BESS and Peakers Units is installed, the supplemental generation requested herein may be gradually removed.

- ii. Aguirre Transformador Emergencia 40 MW
- iii. Cambalache 1 80 MW
- iv. Jobos 20 MW
- v. Yabucoa 20 MW

## **B.** Substitution of Damaged Units with Used Units

1. In addition to the proposed TM installations or as an alternative measure, Genera seeks approval for an initiative to replace heavily damaged or obsolete generation units with high-quality, certified pre-owned units. This approach offers a cost-effective and environmentally responsible means of restoring lost capacity while improving operational efficiency. By decommissioning inefficient, outdated units in favor of more reliable alternatives, Genera aims to enhance grid stability and support long-term energy sustainability.

### C. Deployment of Barges for Emergency Generation

- 1. To further address the immediate capacity shortages, Genera proposes the deployment of power generation barges at strategic coastal locations. These mobile units can be rapidly deployed and integrated into the grid, offering a flexible and impactful solution to fluctuating demand. Unlike land-based generation, barges provide the advantage of mobility, enabling rapid response to emerging crises or shifts in demand across different regions of the island.
- 2. Given the severity of the current crisis, Genera urges the Energy Bureau to expedite the review and approval process for these proposed solutions, especially considering market limitations and lack of availability of power generation units worldwide. Implementing these measures without delay is essential to safeguarding the Puerto Rico's power grid, preventing widespread service disruptions, and ensuring the resilience of critical infrastructure.

# III. BASIS OF REQUEST FOR APPROVAL

1. Genera's petition for approval by the Energy Bureau is grounded in the following vital considerations, each of which underscores the urgent necessity of granting swift authorization to implement the proposed measures.

# A. Compliance with State and Local Approval Requirements for FEMA Funding and Securing Market Opportunities

- 1. Federal financial support from FEMA hinges on obtaining prior approval from the Energy Bureau. Under the Energy Bureau's March 26, 2021, Resolution and Order in Case No. NEPR-MI-2021-0002, PREPA must submit each specific capital investment project for approval to avoid potential noncompliance with the Approved Integrated Resource Plan ("IRP") and Modified Action Plan. To streamline this process, the Energy Bureau directed PREPA to submit each project at least thirty (30) calendar days before its filing with the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3"), FEMA, or any other federal agency. Furthermore, the Energy Bureau requires PREPA to continue reporting over the next five (5) years on the progress of any projects awaiting final approval.
- 2. Genera acknowledges that the Energy Bureau has instructed it to submit a cost estimate with each project presented to the Bureau. However, Genera respectfully requests the opportunity to present these projects before initiating the process of obtaining detailed cost estimates from contractors. Genera intends to open an Emergency Procurement process to evaluate and select the most cost-effective, reliable, and beneficial option for the people of Puerto Rico. By conducting this emergency selection process, Genera will ensure that the chosen solution aligns with public policy objectives while optimizing costs and operational efficiency. This approach will

allow for a more informed and effective decision-making process while maintaining compliance with FEMA funding requirements.

- 3. Genera is acting in good faith and is committed to working collaboratively with the Energy Bureau to find viable solutions to the ongoing energy crisis. Genera seeks to establish open and constructive conversations with the Energy Burau to address challenges, explore potential solutions, and ensure that any actions taken prioritize the best interest of the people of Puerto Rico. This cooperative approach will foster transparency, efficiency, and a shared commitment to resolving the island's pressing energy issues.
- 4. Securing federal aid for these emergency strategies hinges critically on obtaining approval from the Energy Bureau. Furthermore, this approval empowers Genera to explore and capitalize on the best market opportunities for replacing MW. This is crucial for addressing the current capacity shortfall and setting the stage for future enhancements to the grid. Without this essential regulatory support, Genera would find it challenging to confidently pursue replacement opportunities, which could delay vital modernization efforts and strengthening the grid. Thus, this regulatory endorsement is indispensable, serving not only the immediate operational demands but also facilitating strategic initiatives that enhance capacity, resilience, and the long-term sustainability of the energy system.
- 5. Ensuring open and transparent collaboration with the Energy Bureau strengthens the approval process and facilitates the timely implementation of necessary projects. This requirement is far from a mere administrative formality; it is a decisive factor in securing the funds needed to initiate essential emergency generation projects. Swift action and adherence to the Energy Bureau's directives are therefore critical to ensure a timely and effective response to the current crisis.

## B. Addressing the Crisis and Ensuring System Stability

1. The abrupt loss of Aguirre Unit 1 has substantially undermined Puerto Rico's electrical grid, and the situation is worsen by the fragile state of Costa Sur Unit 5. Genera's proposed interventions—ranging from the installation of TMs to replacing defective assets with high-performing used units—are deliberately structured to restore system stability. These measures are essential to preventing prolonged capacity shortages, which could lead to severe safety, economic and social repercussions. Through proactive action, Genera aims to stabilize the grid in the short term while laying the groundwork for a more resilient and modernized energy infrastructure in the long term. Swift regulatory endorsement by the Energy Bureau is indispensable to ensuring Puerto Rico's energy security and preventing disruptions that could negatively impact residents and businesses.

# C. Meeting LUMA's Minimum Generation Capacity Requirements

1. As Puerto Rico's transmission and distribution service provider, LUMA enforces a baseline generation capacity threshold that must be met before outdated or inefficient power assets can be retired. Part of Genera's O&M service is to carry out these decommissioning activities in alignment with the Approved IRP and Puerto Rico's Energy Public Policy. However, current system constraints fall short of the capacity requirements necessary to proceed with this decommissioning process. Without the Energy Bureau's approval for the proposed capacity expansions, the retirement of antiquated equipment will be stalled, and critical projects—such as BESS and the deployment of Peaker units—will likewise face significant delays. These setbacks hamper urgent modernization efforts that are essential for improving the reliability and sustainability of Puerto Rico's energy infrastructure.

#### **D.** Additional Considerations

- 1. A comprehensive approach to Puerto Rico's electrical sector must address several critical issues that directly impact the stability and resilience of the grid:
  - i. Urgent Maintenance and Repairs at Costa Sur Unit 5: The Costa Sur power plant requires immediate and extensive maintenance to prevent a potential catastrophic failure. If left unaddressed, the risk could further destabilize the island's already fragile power system. Given its critical role in the grid, addressing Costa Sur's maintenance needs must be treated with the same urgency as the Aguirre Unit 1 outage. Another major failure could place an unprecedented strain on Puerto Rico's power infrastructure, exacerbating the ongoing crisis.
  - ii. Considerations Regarding the IRP: The currently Approved IRP was predicated upon projections of declining generation demand, grounded in assumptions about demographic shifts, economic trends, and energy-efficiency measures. However, real-world conditions have not adhered to these forecasts, and the island's load continues to strain existing generation resources. This discrepancy complicates any timeline for the retirement of older, less efficient thermal units. While Genera staunchly supports the public policy objective of increasing renewable energy adoption, it is essential to recognize that full integration of renewable resources remains several years away. During this interim phase, sustaining sufficient thermal capacity is vital for ensuring uninterrupted service and averting system vulnerabilities.
- 2. These broader concerns underscore the complexity of transitioning Puerto Rico's electrical infrastructure while balancing immediate operational needs with long-term policy objectives. Genera respectfully asks for the Energy Bureau support and urgency to consider these

perspectives in its evaluation of the proposed solutions, recognizing that each recommended measure plays a crucial role in strengthening the grid, enhancing resilience, and advancing a more sustainable energy future for Puerto Rico and its people.

WHEREFORE, Genera respectfully requests that the Energy Bureau take notice of the above for all relevant purposes and grant the necessary approvals enabling the implementation of these essential measures to ensure the reliability, resilience, and sustainability of the energy infrastructure.

### RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 26<sup>th</sup> day of February 2025.

ROMAN NEGRÓN LAW, PSC

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s/Luis R. Román NegrónLuis R. Román NegrónRUA 14,265lrn@roman-negron.com

## **CERTIFICATE OF SERVICE**

It is hereby certified that this motion was filed using the electronic filing system of this Energy Bureau, and that electronic copies of this Motion will be notified to the following attorneys who have filed a notice of appearance in this case: Lcdo. Alexis Rivera, <a href="mailto:arivera@gmlex.net">arivera@gmlex.net</a>; Lcda. Mirellis Valle, <a href="mailto:mvalle@gmlex.net">mvalle@gmlex.net</a>; Lcda. Laura T. Rozas, <a href="mailto:laura.rozas@us.dlapiper.com">laura.rozas@us.dlapiper.com</a>; Lcda. Margarita Mercado, <a href="mailto:margarita.mercado@us.dlapiper.com">margarita.mercado@us.dlapiper.com</a>.

In San Juan, Puerto Rico, this 26<sup>th</sup> day of February 2025.

/s/ Luis R. Román Negrón Luis R. Román Negrón





January 6, 2025

The Honorable Jennifer Granholm Secretary U.S. Department of Energy Washington, D.C. 20585 Deanne Criswell Administrator Federal Emergency Management Agency Washington, D.C. 20024

Re: Urgent Request for Electric Grid Stabilization Support

Dear Secretary Granholm and Administrator Criswell:

One of the most critical priorities of my administration is the stabilization of Puerto Rico's electric grid, which remains highly vulnerable and unstable. As of today, we are still recovering from the most recent island-wide outage, which took place on December 31, 2024, and continues to require regular manual load sheds due to a lack of sufficient generation and reserves.

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On January 2, 2025, I requested President Biden to declare a federal emergency to restore and rebuild Puerto Rico's electric grid. The continued support from the Department of Energy (DOE) and the Federal Emergency Management Agency (FEMA) is essential to provide additional authorities for the collective efforts to prioritize, expedite, and authorize the critical energy infrastructure projects that must be undertaken or accelerated to finally remedy Puerto Rico's electric grid system. The immediate stabilization of Puerto Rico's grid is needed to effectively and reliably support the permanent works that are underway, without risking critical services to our residents, including our most vulnerable population and in areas of healthcare, public safety, ports and airports, telecommunications, and education services.

In the aftermath of the event of December 31, 2024, when a total shutdown of the power grid occurred due to a sole equipment mishap, it has been determined that with the resources available immediately in Puerto Rico, and at the pace approvals and disbursements are flowing, it will still take a prolonged time to bring the system anywhere near a satisfactory capacity. Not only will it continue to be at risk of similar single-point failures for months or even years but load shed events will be inevitable seasonally. Decisive federal leadership and support is needed to address this now.

Therefore, I am respectfully requesting your most urgent attention and action to address the issues further discussed below through any federal administrative authority available.

1. Reconsider the partial approval of the requests for Permanent Work (PW) 11628, as notified on December 31, 2024, to extend the performance period and to provide additional funding, for the time and amounts as initially requested.

On December 31, 2024, FEMA approved a partial extension under PW 11628 until December 31, 2027, for the use of the temporary power generators. These generators remain critically important to sustain the power grid and maintain the stability of electrical generation in the short term. Although I intend to take steps to accelerate the availability of additional generation in Puerto Rico, the fact remains that the construction and permitting processes for new sources of commercial generation will take years to complete. Particularly, one of our main sources of generation is required by statute to go offline beginning in 2027, without a clear program for replacement of that capacity. Accordingly, I ask that the determination notified on December 31, 2024, be reconsidered and that the performance period for PW 11628 be extended through at least December 31, 2029, or indefinitely, until permanent works are completed to ensure grid stability, safety, and reliability.

I also request that additional funding under PW 11628 be approved in order to cover the comprehensive and actual costs associated with the acquisition, installation, testing and commissioning of the environmental and emission control equipment, as may be required by the Environmental Protection Agency (EPA), for all seventeen (17) temporary generation units—aside from the funds already allocated by FEMA for the Puerto Rico Electric Power Authority (PREPA) to purchase three (3) additional generators. The increase in generation capacity would add approximately 75 MW to prevent potential energy supply shortages, which is the main reason for the multiple load shed events the electrical grid suffers.

2. Expedite the review and approval of PREPA's pending request for reconsideration of the hydroelectric plants retrofit project.

The process of retrofitting PREPA's ten (10) hydroelectric power plants has remained pending before FEMA since August 2023. These hydroelectric facilities are an underutilized but critical component of Puerto Rico's energy infrastructure, with the capacity to generate over 253,040 MWh of carbon-free, renewable energy annually. These hydroelectric plants contribute to grid stability by providing consistent baseload power as well as serving as decentralized energy hubs capable of supporting localized microgrids in emergency situations.

Accordingly, I ask that FEMA review and reconsider in an expedited manner the funding and approval of the retrofitting of PREPA's hydroelectric power plants, to support the modernization and stabilization of Puerto Rico's electric infrastructure.

3. Mission assignment between FEMA and the U.S. Army Corps of Engineers (USACE) to add 565 MW of reliable temporary generation, pursuant to an emergency declaration by the President.

Should President Biden issue the emergency declaration, I would request a FEMA Temporary Emergency Power Mission Assignment to USACE for support of the stabilization of



Puerto Rico's power grid with additional generation. This was already carried out successfully in the aftermath of prior disasters and should be a valuable tool to address this situation.

A prompt temporary increase in generation capacity will significantly contribute to the stability of the system while long-term projects are completed. The proposed additional generation would be installed within the footprint of existing generation plants, utilizing the already available infrastructure to minimize implementation times and costs and any new environmental impacts or transmission installations. It has been estimated that an additional 565 MW will be required for a period of two years until the battery and peaking unit projects currently under development are completed.

# 4. Approval for the purchase of a 50 MW steam unit for the Costa Sur Power Plant peaking units project.

The peaking units project at the Costa Sur power plant includes the installation of two 50 MW combustion turbine units. However, to maximize the efficiency of the project and expand its operational capacity, I request that FEMA and DOE also enable and permit, without requiring undue delays, the incorporation to the design, acquisition and installation of a 50 MW steam turbine which would allow the project to be converted into a highly efficient combined-cycle plant.

# 5. Expedited Purchase and Delivery of the Main Transformer for the Aguirre Battery Project.

Generation utility operator Genera-PR has announced the installation of over 200 MW of Battery Energy Storage System (BESS) capacity at the Aguirre Thermoelectric Power Plant complex. This project aims to enhance the system's auxiliary services, prevent load shedding, support restarts and stabilize the transmission and distribution system parameters.

One of the main challenges of this project is the timely acquisition of the main transformer, which in view of global supply chain issues has an estimated delivery time of over 24 months. Given the critical nature of this component, I am requesting the assistance of the federal government to expedite the acquisition and delivery of this equipment and ensure the project can progress as planned.

In all these projects it is essential that FEMA addresses the need for resources to perform the recovery work in a timely manner, and for DOE to facilitate any aspect of permitting or technical assistance that may be required to advance these projects. My administration is available to work with FEMA and DOE to address these pressing matters and to ensure the stability and resilience of Puerto Rico's energy infrastructure.

Thank you for your consideration of these time-sensitive requests.

Sincerely,

Jenniffer González-Colón

Governor