GOVERNMENT OF PUERTO RICO
CENTRAL OFFICE FOR RECOVERY,
RECONSTRUCTION AND RESILIENCY

Hon. Pedro R. Pierluisi Urrutia
Governor

Manuel A.J. Laboy Rivera
Governor's Authorized
Representative

November 7, 2023

VIA EMAIL: Deanne.Criswell@fema.dhs.gov

The Honorable Deanne Criswell
Administrator
Federal Emergency Management Agency
500 C Street, S.W.
Washington, D.C. 20024

RE: FEMA-4671-DR-PR (Hurricane Fiona) – Direct Federal Assistance Emergency Work To Stabilize the Puerto Rico Power Grid by the Power System Stabilization Task Force

Dear Administrator Criswell,

Since the passage of Hurricanes Irma and María in September 2017, and the earthquakes of 2020, more than 3 million residents in Puerto Rico have struggled with constant blackouts and voltage fluctuations due to the frail state of the energy system, which is in dire need of repair and renovation. The situation is detrimental to daily living and social activities as well as to commercial operations on every scale, not only because of the instability of the power service but also the need to rely on alternative and more costly and pollutant sources to operate. Most recently, as a result of the damages caused by Hurricane Fiona, on October 12, 2022, the Governor of Puerto Rico, with the assistance of the Central Office for Recovery, Reconstruction, and Resiliency (COR3), requested Direct Federal Assistance (DFA) from the Federal Emergency Management Agency (FEMA) to stabilize the Island's electrical power grid as a result of the damages caused by Hurricane Fiona. The request was granted by FEMA.

After the DFA was approved, FEMA issued Mission Assignments (MA) to the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and U.S. Department of Energy, and established the Puerto Rico Power System Task Force to coordinate and integrate efforts to execute the power stabilization plan. The key component of the power system stabilization plan was the addition of temporary power generation to the grid to replace generation that is not currently online or is taken offline to undertake the necessary repairs to Puerto Rico's power system in accordance with the applicable statutes, regulations, and policy requirements. Accordingly, temporary generation units were installed in the Palo Seco and San Juan sites, which allowed the integration of 350 MW of additional power into the electrical grid. The Palo Seco units (150MW) were commissioned on May 29, 2023, and the San Juan units (200MW) were commissioned on September 26, 2023. To

date, the temporary generation has avoided an estimated 41 load shed at peak hours. It is projected that they will prevent 18 additional events from November 1, 2023, through March 15, 2024, and an additional 11 should they remain until the end of 2024. This projection is made with the assumption that the forced outage factor remains stable, which, given the condition of the PREPA fleet, is not a condition we must rely upon.

On October 16, 2023, FEMA informed COR3 that it would begin with demobilization efforts since the DFA was being performed under its Emergency Work Authority under Section 403 of the Stafford Act (42 U.S.C. 5170b), as implemented by Title 44 of the Code of Federal Regulations (44 C.F.R. § 206.208), and that the funding and operation of the temporary electric generation combustion turbines at PREPA's Palo Seco and San Juan sites would end on March 15, 2024. However, PREPA does not have backup generation capacity to cover the 350MW that will be lost when the temporary units are removed by FEMA. Based on the information provided by PREPA through Genera PR ("Genera," operator of the PREPA legacy generation assets) and LUMA Energy PR ("LUMA," operator of the PREPA T&D assets), there is only 47% of generation capacity in operation and an average of 100MW in reserve, which is below the industry applicable standard of approximately 700MW.

When the MA began, FEMA indicated that the main purpose was for PREPA to perform repairs to the generation fleet while the additional generation was connected. Nevertheless, given the limited capacity of the grid and the uncertainty as to how long the temporary generators would be in place, Genera could not perform repairs that went beyond the regular maintenance and repair schedules. Nonetheless, even with the 350MW of temporary generation that were installed, during the past year Puerto Rico has suffered over 100 load-shedding events, which have affected over 600,000 customers, who on average have been without power for 9 hours. A deficit of 350MW exposes over 550,000 American Citizens living in Puerto Rico to power loss and economic losses of up to $17 million per event.

Nevertheless, with the additional generation in the planning consideration, Genera initiated a Critical Components Replacement Program (CCRP). This program aims to replace the fleet's critical components rather than continue with the traditional repairs that have not rendered good results. To make these replacements, Genera and LUMA must have adequate generation reserves to conduct outages to replace these components. Yet, if the temporary power is disconnected on March 15, 2024, Genera will not be able to execute CCRP due to 1) the lead time of the majority of the critical components, which are expected to be delivered in March 2024 and 2) it would take until at least through 2026 to execute the CCR due to the current generation capacity limitations. According to Genera, if the temporary generators were to continue in operation until December 2024, the CCR can be executed faster. It is estimated that the CCRP will reduce the current 32% forced outage rate to 15%.

As you might be aware, the record-breaking temperatures amid the hurricane season and daily outages have proven that the current generation system does not have the capacity to produce sufficient energy, and the required operation reserve has been around 200MW in peak demand hours. In fact, during this summer, the AES power plant had limitations of approximately 100MW

due to issues in processing the coal fuel, causing a significant load-shedding event that affected approximately 140,000 customers.[1] Further, Aguirre #1 (450MW nameplate) continues out of service due to damages found during start-up attempts. As a result, during September 2023 customers did not have power 30% of the time due to prolonged repairs and forced outages, both caused by the age of the generation fleet. This situation could have been much dire without the temporary power provided by FEMA. This is a clear example that it is of the utmost importance to have FEMA's temporary generators in operation to provide stability to the power grid and allow it to perform short-term repairs and execute the CCRP successfully and, in turn, reduce forced outages.

Based on the foregoing, the continued use of temporary power generators is vital for several reasons:

1. **Critical Infrastructure**: The residents of Puerto Rico rely on electricity for essential services such as hospitals, water treatment facilities, emergency shelters, education and communication systems. The extended use of FEMA's generators will help maintain these services until the Island's primary power infrastructure continues to be repaired.

2. **Public Safety**: The safety and well-being of our residents depend on a reliable power supply. Prolonged use of generators ensures that vulnerable populations, including older adults, children, and those with medical conditions, are adequately cared for.

3. **Economic Recovery**: Local businesses are struggling to be fully operational due to the instability of the electrical grid and power outages, which interrupt their operations and increase expenses. Extended generator support will enable them to operate, preserve jobs, and contribute to our economic recovery.

4. **Long-Term Resilience**: By extending the use of generators, we can take the necessary time to strengthen our power infrastructure, making it more resilient to future disasters.

Consequently, we urge you to consider the extenuating circumstances and unique challenges we face and the necessity of this extension. COR3 is committed to working collaboratively with FEMA and other relevant agencies to ensure that the generators are used efficiently and effectively to support our recovery efforts. To facilitate the consideration of the requested extension, we submit the most recent Generation Stabilization Plan published by LUMA (Annex A) on October 16, 2023, and Genera's Hurricane Fiona Latent Damage Preliminary Assessment Report submitted, to FEMA, on November 6, 2023 (Annex B). Additional information is available upon request.

In accordance with 44 C.F.R. § 206 .208(d), COR3 kindly requests that FEMA grant an extension for the use of temporary power generators in PREPA's Palo Seco and San Juan sites until December

[1] The Aguirre and AES plants suffered damages as a result of Hurricane Fiona which has exacerbated their operational challenges and diminished their reliability.

31, 2024, to provide coverage and stability to the Island's electrical grid throughout the 2024 hurricane season. This additional assistance will significantly contribute to our recovery efforts and the eventual return to normalcy.

We are available for any further information or discussions regarding this request. Thank you for your attention to this matter, and we hope for a positive response to our request. FEMA's continued support is invaluable to the recovery process.

Regards,

Manuel A. J. Laboy-Rivera, PE, MBA
Executive Director
Governor's Authorized Representative

Cc: David Warrington, Regional Administrator
Duwayne W. Tewes, Federal Coordinating Officer

Encl.: LUMA's Generation Stabilization Plan Discussion – 10.16.2023
Genera's Hurricane Fiona Latent Damage Preliminary Assessment Report