EXECUTIVE SUMMARY – INTEGRATED RESOURCE PLAN 2020

After a comprehensive evaluation process, on August 21, 2020, the Energy Bureau of the Puerto Rico Public Services Regulatory Board ("Energy Bureau") **APPROVED IN PART AND REJECTED IN PART** the Puerto Rico Electric Power Authority's ("PREPA") Proposed Integrated Resource Plan ("IRP"). Based on its evaluation, analysis and conclusions, the Energy Bureau **APPROVED** a a Modified IRP and a Modified Action Plan, as described in the August 21 Final Resolution and Order. The Modified Action Plan covers a period of five (5) years, from the effective date of the Approved Modified IRP.

The key elements of the Approved Modified IRP and the Approved Modified Action Plan are as follows:

- 1. Approval of the MiniGrid concept. Energy Bureau to initiate an Optimization Proceeding, focused on one or two adjacent MiniGrid regions to optimize transmission and distribution needs.
- 2. Approval of \$2 billion expenditure on non-MiniGrid transmission elements. The Energy Bureau must approve all specific related expenditures/investments.
- 3. Pre-Approval of \$5.9 billion expenditures for investment in several elements, including distributed resilience, microgrids, Virtual Power Plants ("VPP") and selective MiniGrid investments. Final approval to be determined in the Optimization Proceeding.
- 4. Approval of \$911 million expenditure on Distribution System Hardening. Must coordinate with ongoing Energy Bureau's Integrated Distribution System Planning process.
- 5. Development of at least 3,500 MW, up to a maximum of 3,900 MW, of new Solar PV by 2025. This capacity can be supplied by renegotiating the existing non-operational renewable contracts, acquisition of new resources through competitive bidding processes, VPPs and distributed generation provided by customers.
- 6. Development of at least 1,360 MW, up to a maximum of 1,480 MW, of new Battery Energy Storage capacity by 2025.
- 7. Accelerate the implementation of Energy Efficiency ("EE") and Demand Response ("DR") programs. Support all necessary steps to establish EE programs at 2% per year savings, including quick-start programs. Maximize DR resources through all available and economical programs.
- 8. Accepted the renegotiated Power Purchase and Operation Agreement with EcoEléctrica and the Fuel Purchase agreement with Naturgy, LLC until 2032.

- 9. Accepted the conversion of the San Juan Units 5 and 6 to burn natural gas as a fix decision on this IRP cycle. The current Fuel Purchase agreement with New Fortress Energy expires in 2025, therefore, the extension of such contract will be considered as an option and not a fixed decision in the next IRP cycle.
- 10. Retirement of the AES plant by the end of 2027. PREPA may submit, for the Energy Bureau's consideration, the conversion of the AES plant to burn natural gas, as part of the next IRP.
- 11. Retirement within the next five (5) years of a portion of the Frame 5 peaking units, and the following steam units: Aguirre Steam 1 and 2; Aguirre CC 1 and 2; San Juan 7, 8, 9 and 10; Palo Seco 3 and 4; and Costa Sur 5 and 6. Retirement is subject to availability of new generation resources as detailed in the Approved Modified Action Plan.
- 12. Replacement of 81 MW of the Frame 5 peaking units' capacity through a competitive bidding process, agnostic of technology.
- 13. Conversion of 8 retired steam plants to Synchronous Condensers across the San Juan, Aguirre and Palo Seco locations, starting with San Juan 9 and 10.
- 14. Approval of \$5 million for limited preliminary siting, permitting and feasibility analysis for a new Combined Cycle unit located in Palo Seco. Based on uncertainties regarding the Solar PV and Battery Energy Storage prices, the Energy Bureau determined prudent to commence the preliminary planning work related to this unit in case the Solar PV and Battery Energy Storage does not materialized as projected. The development of a Land-Based LNG terminal in San Juan is dependent on the Palo Seco Combined Cycle being implemented.

The Energy Bureau did not approve the following elements proposed by PREPA as part of the Energy System Modernization Plan ("ESM Plan"):

- 15. Preliminary activities for Ship-based LNG at Yabucoa for the development of a new Combined Cycle unit. The development of such infrastructure was not part of a least cost plan.
- 16. Preliminary activities for a Ship-based LNG terminal at Mayagüez for the conversion to natural gas of the existing 4 x 50 MW turbines and a possible new Combined Cycle unit. The conversion and the new Combined Cycle unit were not determined to be least cost. Based on their age, the Energy Bureau determined that PREPA may keep these units in operation.
- 17. Development of eighteen (18) new Gas Turbines to replace all Frame 5 peaking units. The Energy Bureau determined that such development was not part of a least cost plan. However, as described above, the Energy Bureau approved the

replacement of 81 MW of Frame 5 capacity through a competitive bidding process agnostic of technology.