

February 11, 2020

Mr. Edison Avilés Deliz
President
Puerto Rico Energy Bureau
World Plaza Building
268 Avenida Muñoz Rivera
San Juan, PR 00918

Re: Relmagina Puerto Rico's Remarks on Puerto Rico Electric Power Authority's Integrated Resource Plan

Dear Mr. President and Commissioners:

Good afternoon from Relmagina Puerto Rico (Relmagina). Relmagina was created in January 2018, in the aftermath of hurricanes Irma and Maria and the throes of Puerto Rico's fiscal and economic crisis. Nonpartisan and independent, Relmagina evolved from the Resilient Puerto Rico Advisory Commission and is currently a program of the Center for a New Economy that promotes a strong, equitable and prosperous Puerto Rico by helping to rebuild the island on a more solid, fair and resilient foundation.

Relmagina was created to serve as a unifying voice among a wide range of Puerto Rican groups with the main purpose of developing actionable and timely recommendations to rebuild the country in a way that strengthens it physically, economically and socially and equips it to face future threats. An essential part of Relmagina's vision is to promote greater community participation and transparency in the recovery processes so that the people of Puerto Rico can play an active role in forging their future.

In June 2018, after a participatory process involving community leaders, academics and professionals from around the island, Relmagina proposed **97 actions** that address key issues for the recovery and reconstruction of Puerto Rico in six sectors, taking into consideration current challenges, the mitigation of natural disasters and a sustainable development of the island.

Energy is one of these sectors, an indispensable pillar of Puerto Rico's reconstruction due to its broad impact on all aspects of Puerto Rican life and economy, and essential to achieve positive changes for the island in the short and long term. Therefore, with the participation of experts, interested parties and community leaders from around the island, Relmagina developed 12 recommendations to guide the transformation of the country's energy system, with the goal of addressing Puerto Rico's energy needs by transforming its electrical power infrastructure into an affordable, reliable and innovative system, while reducing adverse impacts on human health and the environment. A robust electrical system is critical to mitigate the impacts of a natural disaster, especially for the vulnerable

population. Our remarks during this public hearing promote the implementation of these energy recommendations, in particular those related to the Integrated Resources Plan (IRP) and the ones that seek to increase the resilience of Puerto Rico's energy system.

The Puerto Rico Electric Power Authority (PREPA), under the model of a public corporation, was established to serve as a public policy mechanism to provide reasonable electricity costs and serve a number of interests associated with the social welfare of Puerto Rico, such as security, reliability of service, acceptable prices for specific types of users, local and sectoral development objectives, job creation, sustainability and environmental protection.

Before hurricane Maria, the energy system had become an infrastructure incapable of providing service that was accessible and affordable, robust, innovative, reliable and safe, or managing to implement public policies for the sector. PREPA was described as a vertically integrated monopoly and the largest public corporation in the United States. It depended on a fleet of old generation plants that use mainly oil and diesel fuel. The costs per kilo watt hour were already extremely high, for an energy system with decreasing reliability, where customers suffer interruptions which are between four to five times more frequent than in the United States, is recognized as the largest pollutant on the island according to the EPA's toxic emissions inventory and is currently in a bankruptcy process under Title III. The age of the generation, transmission and distribution systems and the lack of proper maintenance were the main causes for the impact caused by Hurricane Maria, which confirmed the weakness of the institutional and physical structure of Puerto Rico's electrical power system.

According to best practices in the energy industry, the Integrated Resource Plan (IRP) is a public process where energy options are identified and developed to achieve the greatest public good. An IRP represents a planning approach with the potential to adopt a society-wide perspective, incorporate public participation in a meaningful way and establish low-cost, low-risk actions with results that minimize environmental and social impacts. This IRP defines the resource plan to supply Puerto Rico's energy demands for the next 20 years and for this reason it's important to prioritize and strengthen the IRP as the central piece of the different energy transformation processes that are occurring simultaneously in Puerto Rico. It is also critical that the Puerto Rico Energy Bureau (PREB) guarantee that the investments made on Puerto Rico's energy system comply and are aligned with the IRP that is finally approved by the PREB:

Taking into account the relevance of the IRP, ReImagina's recommendations and the processes occurring in the energy sector, we present our primary comments related to the IRP presented by PREPA under evaluation by PREB and suggestions for incorporation into the final IRP that is to be approved:

1. **The IRP presented by PREPA responds to the needs of PREPA and not Puerto Rico's energy needs or the greatest public good.** The IRP analyzes about 30 different scenarios for the electrical system (including generation plant

options and network configurations) and provides analysis details for 6 possible scenarios in depth, 5 of these were chosen by analytical models and the 6th recommended by PREPA (called ESM or “Energy Modernization System”). The IRP recommends the ESM as the action plan that should be followed. The IRP doesn’t explain or justify the reasons why this sixth scenario was included or why this plan is recommended by PREPA. This plan isn’t the cheapest and it doesn’t generate the most renewable energy. In addition, the ESM is not necessarily going to meet the renewable energy goals established in the new public energy policy, Law 17-2019, if the projected demand does not materialize due to the influence of other external factors, such as the possible approval of the RSA and not meeting the projected energy efficiency goals.

One of ReImagina’s energy recommendations is precisely to promote and enforce integrated public policies and regulations to enable distributed generation. **The ESM has fixed pre-selected decisions that represent a substantial and unjustified investment in natural gas infrastructure and do not contemplate the risks associated with this type of energy system, instead of investing in increasing renewable energy as much as possible.** It should include specific strategies and details to increase renewable energy at a large scale with the development of additional solar farms, and on a smaller scale with solar panels and batteries for homes and businesses around the island. The benefits of distributed energy are not valued or contemplated in the IRP analysis. The proposed investments in natural gas infrastructure could block (natural gas lock-in) other public and private efforts to introduce alternative energy technologies.

In addition, the IRP doesn’t consider strategies to increase energy efficiency and include electric vehicles. It seems contradictory that under the ESM it is detrimental for PREPA to promote energy efficiency among its consumers. In summary, we believe that there are cheaper and less risky alternatives that create more energy resilience for Puerto Rico than the ESM. Other scenarios should be considered for the final Action Plan that focus on achieving renewable energy objectives in the short and long term and are less susceptible to uncertainties and changes in demand, technology, social trends, transportation and fuel costs.

2. **The IRP should be the main document that governs the transformation and future composition of Puerto Rico’s energy system.** We are very concerned that there are several processes related to the country’s energy transformation, such as the privatization, renegotiation of PREPA’s debt with bondholders, development of the MODGrid plan and request for federal funds from FEMA, which are occurring at the same time as the IRP evaluation process without a clear order, relationship and interdependence between these processes. **No long-term generation concession agreement should be signed before the final IRP is approved by the PREB. The IRP should guide the investments made, identify sources and location for investments to meet the demand for energy in a reliable, resilient and low-cost manner complying with the mandate established in Law 17-2019.**

3. **The new design of the energy system presented in the IRP integrates 8 interconnected micro grids that can operate independently using local resources.** We applaud this design as it will provide greater energy resilience than we currently have in Puerto Rico, it responds to the claim from many stakeholders that want to integrate micro grids and renewable energy to the greatest extent possible, and rebuild, strengthen and modernize the transmission and distribution systems to increase safety and energy resilience.
4. **The IRP presented by PREPA doesn't provide a detailed risk analysis of the resources that are being evaluated, considered and recommended in the IRP.** It is necessary to include a risk analysis of the infrastructure resources considered, if one was included in this process no details were provided. We understand that the impact of the past hurricanes was taken into account, but other possible natural hazards, such as earthquakes, floods and droughts also need to be taken into consideration. The risk component has to be an important and integral part in the evaluation of resources and the capacity and ability to meet Puerto Rico's energy needs.

It's the government's duty to ensure an energy transformation that produces fair incentives and guarantees strict regulatory oversight to support a resilient, affordable and sustainable energy system. We have an opportunity to develop an adequate and appropriate plan for the transformation of the energy system. The plan can pave the way for Puerto Rico to stop relying on expensive imported fuels burned in outdated and inefficient power plants and lead the country to a more localized and near load power generation, new investments in energy efficiency, more resilient microgrids, less dependence on the island's vulnerable transmission network and a more modern distribution system along with new market structures.

Puerto Rico can change our electrical power system to one that is more resilient, profitable, sustainable and that supports recovery and economic development if we correctly execute the energy transformation processes.

We are happy to collaborate with the Puerto Rico Energy Bureau to support the effective energy transformation of Puerto Rico. Please call 787-324-1703 or email malu.blazquez@reimaginapuertorico.org to discuss or clarify anything presented in these remarks.

Respectfully yours,

Malu Blázquez Arsuaga
Executive Director
ReImagina Puerto Rico