



February 11, 2020

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Associate Commissioner

Eng. Vanessa I. Acarón Toro
Examining Officer

Re: **CEPR-AP-2018-0001 – Public hearings on the Review Process of the Integrated Resource Plan proposed by the Puerto Rico Electric Power Authority**

Dear Examining Officer:

The Integrated Resource Plan (IRP) proposed by the Puerto Rico Electric Power Authority (PREPA) plans out the development of Puerto Rico's electric power infrastructure for the next twenty (20) years. Its implementation will therefore have a significant impact on the country's economic development and will determine if Puerto Rico will be able to: (1) eliminate its dependency on fossil fuels, (2) integrate the maximum amount of renewable

energy into its electric power grid, (3) increase its resiliency in the face of natural disasters, (4) decentralize its electric power system and (5) protect the human right of every person living in Puerto Rico to have adequate access to affordable, sustainable energy. As we learned with Hurricane María, energy saves lives. This is why the Hispanic Federation appreciates the space granted by this forum to comment on the IRP proposed by PREPA.

Hispanic Federation¹ is a non-profit organization founded in 1990 in the State of New York, United States, with the goal of supporting and empowering Hispanic communities and institutions through initiatives in the areas of education, health, immigration, public engagement, economic development, the environment, and civil rights. For years, the organization has advocated for the rights of Puerto Ricans and other Hispanic communities at the federal, state, and local levels. Today, Hispanic Federation has offices in five states and Washington D.C., and has established permanent operations in Puerto Rico after Hurricane María.

To date, the organization has committed over \$30 million dollars to 116 local initiatives and non-profit groups across the island, with a focus on recovery, housing, agriculture, mental health, and energy. With respect to energy issues, HF has worked in conjunction with local organizations to develop dozens of energy resiliency projects in Puerto Rico, with an estimated investment of 4.5 million dollars. For example, one of the initiatives with most impact is the “Solar Saves Lives”² project, through which solar panels are being installed in 15 health centers so that they may continue to offer health services during periods of emergency. This type of project models how, through renewable and decentralized energy resources, we can create resilience to future hurricanes and other emergencies that put people's health at risk. In addition, some of these health centers will save over \$112,266.00 in annual electricity costs—money that could be used to improve the quality of their health services.

In light of the pressing need for a decentralized, sustainable, and resilient electric power grid in Puerto Rico, the IRP proposed by PREPA should be evaluated within the applicable legal framework. Among other laws and regulations, this legal framework primarily involves Act 57-2024, known as the Energy Transformation and Relief Act, as amended, and Act 17-2019, known as the Puerto Rico Energy Public Policy Act, as amended.

¹Hispanic Federation, https://hispanicfederation.org/about/mission_and_history/

² The “Solar Saves Lives” initiative was developed through a coalition formed by Hispanic Federation, The Solar Foundation, Direct Relief, and Clinton Foundation.

The IRP's legal framework

In the relevant section, Act 57-2014 requires that PREPA prepare an integrated resource plan that, among other things, considers all the reasonable resources to satisfy the demand for electric power services during a period of twenty (20) years, including services related to the energy supply, be they existing, traditional and/or new resources, and services related to energy demand, such as energy conservation and efficiency, demand response, and localized generation by the customer. The law requires that the plan be developed with ample participation on the part of citizens and interest groups.³ Additionally, such a plan must comply with the requirements of Act 17-2019 and be approved by the Puerto Rico Energy Bureau.

Among other provisions, Act 17-2019 establishes that PREPA must “...reduce, and eventually eliminate, the use of fossil fuels for generating energy, through the integration of renewable energy in an orderly and progressive way, thus guaranteeing the stability of the electric power system while maximizing renewable energy resources in the short, medium, and long terms.”⁴ It also requires reaching a minimum of 40% renewable energy integration by 2025; 60% by 2040; and 100% by 2050. At the same time, it requires reaching a goal of thirty percent (30%) energy efficiency (EE) by 2040.

We would like to emphasize the fact that this forum has the legal obligation to enforce the public policy expressly set forth in the above laws. Let's take a look at what the IRP submitted by PREPA proposes and see if it meets the legal requirements described herein.

Scenarios and action plan proposed by the IRP

The IRP presents six scenarios showing different development alternatives for the country's electric power system. These scenarios are numbered 1 through 5, with a sixth scenario called “Energy System Modernization” (ESM). The latter is the scenario recommended in the IRP and proposes, in summary, the following: (1) integrating 1800 MW in large-scale solar projects (in blocks of approximately 250 MW) during the first five years of implementation of the plan; (2) integrating 920 MW of energy storage capacity with batteries; (3) converting San Juan units 5 and 6 to natural gas, which in turn requires the construction of the infrastructure to receive the fossil fuel; (4) renegotiating its contract with Ecoeléctrica or adding 302 MW generation capacity to the Costa Sur Power Plant with natural gas; (5) retiring generation units Aguirre 1 and 2, Costa Sur 5 and 6, and San Juan 7 and 8; (6) installing a new natural gas unit to generate 302 MW in Palo Seco by the year 2025; (7)

³ Article 1.3 (II) of Act 57-2014, known as the Energy Transformation and Relief Act, as amended, 22 L.P.R.A. sec. 1051 (a).

⁴ Article 1.6 (7) of Act 17-2019, known as the Puerto Rico Energy Public Policy Act, as amended.

installing eight microgrids across the island, principally with natural gas-based generation; (8) installing 18 natural gas rapid response (peaking) units distributed among five sites around the island; (9) constructing a natural gas import terminal in San Juan, including a natural gas pipeline that would transport the gas from San Juan to Palo Seco; (10) constructing a natural gas import terminal in Yabucoa; (11) constructing a natural gas import terminal in Mayagüez; and (12) in a general and speculative way, the plan proposes incorporating consumers into the distribution, energy efficiency, and demand response systems.

Based on the above summary, we will discuss the eight (8) principal problems posed by the IRP as proposed by PREPA:

Main problems of the IRP

1. The IRP proposes a transformation of the energy generating resources that is obviously focused on natural gas, instead of prioritizing maximum integration of renewables into the grid. Specifically, of the current generation capacity of approximately 5,011 MW⁵, the plan proposes an integration of only 1800 MW of large-scale renewable energy (blocks of approx. 250 MW), allegedly by the year 2025. With respect to the integration of those MW, the IRP does not discuss locations, investments or specific, concrete plans to achieve it, unlike the concrete planning it presents for natural gas projects, some of which are already underway. Neither does the IRP include a concrete plan for reaching the goals of 60% renewable energy by 2020 and 100% by 2050. Instead, as proposed, **the IRP maintains a long-term fossil fuel-based generation for over 60% of the energy generation on the island, thereby failing to meet the express requirements of Act 17-2019.**
2. **The IRP does not comply with responsibly considering localized energy generation by customers as a resource for satisfying the demand for electric energy services**, as required by Act 57-2015 and Act 17-2019. Specifically, the IRP only indicates that it will consider it, but, once again, fails to establish a concrete plan to encourage the integration of that resource. In fact, experts on the subject state that if we use only 50% of the total area of residential roofs in Puerto Rico to integrate photovoltaic panels into the grid, we would be generating approximately 17,500 million kw/h annually⁶, thus satisfying a high percentage of the country's energy demand, which

⁵ Please see Section 7.1.2.5 of the Integrated Resource Plan, pp. 7-6.

⁶ Irizarry Rivera, A., O'Neill Carrillo, E., & Colucci Ríos, J. (2009), Achievable Renewable Energy Targets For Puerto Rico's Renewable Energy Portfolio Standard, Final Report, pp. 5-52, https://www.uprm.edu/aret/docs/Ch_5_PV_systems.pdf

was estimated at 17,235 million kw/h for 2015 in a report by the State Office for Public Policy on Energy⁷.

3. **The IRP does not provide for reaching the goal of 30% energy efficiency by 2040.** Specifically, it fails to include a clear strategic plan to reach this goal, and, worse still, to this day PREPA does not even have a program to address this goal. Moreover, the economic feasibility of such a program is still a point of discussion in this forum, when the reality is that energy efficiency reduces energy demand and facilitates the integration of renewable, resilient energy into the power grid, as required by law.
4. **The IRP maintains a centralized, vulnerable electric power system.** Even the proposed 1800 MW of renewable energy are presented in the IRP through large-scale projects of approximately 250 MW each. This does not promote power grid resilience in the face of natural disasters and the impacts of climate change. The experience during Hurricane María and during the earthquake on January 7 this year showed us the importance of decentralizing the power grid. A system of distributed generation will allow us to restore electric services quickly after an emergency, thereby fulfilling the obligation of saving lives.
5. **THE IRP does not include an evaluation on the seismic vulnerability of existing and proposed infrastructures.** The earthquake on January 7, 2020 not only highlighted the need to decentralize the power grid, but also evidenced the resilience of photovoltaic systems during seismic events. Similarly, the damages to the Costa Sur power plant illustrate the need to evaluate the risks posed by the natural gas terminals and pipelines proposed for San Juan, Yabucoa, and Mayagüez.
6. As submitted, **the IRP can heavily impact on the natural resources and communities on the island.** For example, the impact and risks to the coastal ecosystems and communities where the proposed natural gas terminals and pipelines will be located must be evaluated in a responsible manner. Similarly, it is important to assess the impact of the 250 MW photovoltaic projects requiring approximately 1,000 acres of flatlands that are potentially productive for other uses such as agriculture. All these impacts and risks must be responsibly analyzed in a planning document such as the IRP.
7. **The IRP submitted is a speculative planning document,** since the scenarios analyzed can be significantly affected by such critical factors as energy demand fluctuations, natural market prices, and the PREPA debt restructuring agreement, which to this day remains in negotiations. Additionally, the IRP considers increasing the generation capacity of the Costa Sur power plant. However, the January 7, 2020 earthquake caused significant damage to the plant, and PREPA currently does not know the impact those and other damages caused by the earthquakes will have on the implementation of this plan.

⁷ “Estado de Situación Energética de Puerto Rico,” 2015 Annual Report, State Office for Public Policy on Energy, p. 25, <https://inesi.upr.edu/informe-anual-del-estado-de-situacion-energetica-de-puerto-rico-2015/>

8. **The IRP is being implemented by PREPA without receiving the approval of the Energy Bureau.** As published by Governor Wanda Vázquez Garced, her government has adopted and is implementing a modernization plan of the electric power grid, at a cost of 20.3 mil billion dollars.⁸ Specifically, on October 24, 2019, the executive director of the Central Office of Recovery, Reconstruction, and Resilience (COR3) reported to the press that said plan had been underway for some 18 months and that, of the total cost, \$14 billion is allegedly guaranteed with funds from the FEMA Program of Public Assistance and from its Section 404 Hazard Mitigation Program, as well as the Community Development Block Grant - Disaster Recovery Program (CDBG-DR). The executive director added that the remaining \$6 billion dollars will be obtained from other federal and state funding sources or through public-private partnerships. So it is a matter of great concern that we are evaluating here today the viability of a plan that is already being implemented and has been assigned federal funds, without legal approval from this forum and, worse still, without the ample participation of citizens and interest groups as expressly required by Act 57-2014. Once again, the government continues to make crucial decisions for our economy, behind closed doors and contrary to applicable legal standards.

Conclusion

As has been established, the IRP fails to meet the percentage goals for the transition to renewable energy required by Act 17-2019; it fails to responsibly consider localized energy generation by customers as a resource for satisfying the demand for electric service; it fails to meet the goal of 30% energy efficiency by 2040; it maintains a centralized, vulnerable electric power system; it does not include an evaluation of the seismic vulnerability of existing and proposed infrastructures; it fails to responsibly consider its impact on the island's natural resources, ecosystems, and communities; it is a speculative planning document; and it is being implemented by PREPA without the ample participation of citizens and interest groups as expressly required by Act 57-2014 and without the legal approval of the Energy Bureau.

In view of all the foregoing, Hispanic Federation respectfully requests that the Puerto Rico Energy Bureau enforces its jurisdiction, rejects the IRP as proposed, and requires that PREPA submit a realistic, concrete plan that addresses the deficiencies specified above and complies with all the requirements of the law. Puerto Rico is bankrupt, and the little money available to rescue our economy and quality of life should be invested in truly promoting a sustainable, resilient development of our electric power grid. There is no room for improvisation. Nor can we accept government decisions that are clearly contrary to the country's energy public policy, that make us more dependent on fossil fuels (natural gas), and that compromise the effective use of the limited public funds available to reconstruct our

⁸ El Nuevo Día, "Gobierno presenta el plan de modernización de la red eléctrica," October 24, 2019, <https://www.elnuevodia.com/noticias/locales/nota/gobiernopresentaelplandemodernizaciondelaredelastica-2525483/>

electric power grid. The state has the obligation to protect people's right to have affordable, clean, resilient, and sustainable energy. We trust that the Energy Bureau will protect that right.

Thank you,

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