



June 1, 2018

David Owens, Chair
Cris Eugster, Co-Chair
Transformation Advisory Council
c/o Puerto Rico Electric Power Authority
P.O. Box 364267
San Juan, Puerto Rico 00936-4267

Dear Mr. Owens and Mr. Eugster,

Since 2015, the Institute for Energy Economics and Financial Analysis (IEEFA) has provided technical assistance to a number of organizations with an interest in Puerto Rico's electric system. Among other activities, we have provided expert testimony in several Puerto Rico Energy Commission (PREC) dockets including the first and thus far, only, Integrated Resource Plan (IRP) filed by PREPA.

Like so many other interested parties and stakeholders, IEEFA would like to see "a new power sector for Puerto Rico that will: provide electricity below 20 c/kWh; deliver low-cost, clean, and resilient power; rebuild and maintain a modern, reliable grid; implement operational efficiencies to lower cost and improve service; and establish a fiscally responsible entity."¹ The challenges impeding Puerto Rico's ability to reach that goal are no doubt extraordinary. While goal-setting is important, such statements will merely remain a goal until a coherent strategy to implement that goal can be planned and undertaken. It is for this reason that PREPA's next IRP is of extreme importance to Puerto Rico. There is no other entity, besides PREPA, with the resources and charge to produce a plan such that Puerto Rico might reach this goal.

We've seen PREPA take some strategy-related steps in preparation for its forthcoming IRP for which we are cautiously optimistic. For example, PREPA appears to have teamed with the New York State Smart Grid Consortium (NYSSGC) to undertake analysis that we believe to be heretofore unprecedented in Puerto Rico. According to the Department of Energy (DOE) press release announcing the collaboration, "In Puerto Rico, NYSSGC and ProsumerGrid will use data from the grid to determine a set of technology and policy options for the power system, including the integration of DERs, microgrids, and advanced technologies. ProsumerGrid will offer its expertise and

¹ PREPA certified fiscal plan, p. 3

modeling tools, developed with support from ARPA-E, to develop innovative and sound technological solutions for the recovering grid.”²

It is difficult to overstate how different this proposal is from the approach taken for PREPA’s last IRP.³ The last IRP was entirely focused on differing portfolios of centralized generation and made static assumptions about resources like demand-side management, distributed renewables, and demand response. It also presumed that nothing about Puerto Rico’s transmission and distribution systems would change and that many of Puerto Rico’s power plants would continue to operate in a highly unreliable fashion and at very low capacity factors. We question, therefore, why PREPA has chosen to hire Siemens for this IRP since Siemens was the contractor that produced most of PREPA’s prior IRP. Indeed, the modeling tools that Siemens used to produce PREPA’s IRP do not model Puerto Rico’s distribution system at all, have no ability to select or reject new resources on an economic basis, and have great difficulty modeling energy storage technologies.

It’s not clear how NYSSGC’s work will overlap with Siemens’, if at all. Indeed, there is the distinct possibility that Siemens will produce this IRP in the same manner that it did the last and use little to no input from NYSSGC’s modeling.

We object to PREPA’s plan to ignore the order requiring it to submit this IRP to the PREC.⁴ There is no other forum in which stakeholders can probe the many assumptions that underlie PREPA’s IRP in a meaningful way. These assumptions are complex and are highly unlikely to be adequately summarized in an IRP document of any length. Allowing stakeholders the opportunity to ask discovery is the only way to help shed light on what is otherwise a black box process.

We welcomed the news that PREPA was seeking input on this IRP at upcoming meetings June 4 – 6. Here again, however, we wonder whether the stakeholder process will be meaningful. Often what a utility seeks in these types of forums is specific suggestions and even specific inputs that it can then model for its IRP. Unfortunately, stakeholders frequently lack the resources to produce this information. For example, if a stakeholder is concerned that PREPA’s load forecast doesn’t adequately capture the loss of load caused by emigration from the island, that stakeholder is unlikely to have the ability and resources to produce an alternative load forecast. This makes a back-and-forth process between utility and stakeholder essential to actually incorporating stakeholder feedback. PREPA says that it intends to solicit stakeholder feedback at the beginning, during, and in the final stages of its IRP, but it would be helpful to know exactly how it intends to do so and what steps it will take to incorporate stakeholder feedback. Indeed, the agenda announced for the June 4th meeting is so dense and the meeting time so short that there is no way PREPA will be able to incorporate the feedback of all the stakeholders let alone take any questions from participants.

² See <https://www.energy.gov/articles/building-more-resilient-grid-puerto-rico>

³ For further discussion of PREPA’s prior IRP see: <http://ieefa.org/wp-content/uploads/2016/04/Comments-on-the-Puerto-Rico-Electric-Power-Authoritys-Integrated-Resource-Plan-April-2016.pdf>

⁴ Commission Order, Case No. CEPR-AP-2017-0001, May 24, 2018.

This IRP is essential not just to the success of the Fiscal Plan but also to the economic and physical recovery of Puerto Rico from Hurricane Maria and its longstanding economic woes. It is critically important, therefore, that this next IRP take a wholly different approach from the last. That is, it ought to consider the electric system from the distribution to the transmission level, evaluate the large-scale use of technologies heretofore unutilized in Puerto Rico like energy storage, and consider costs and benefits of widespread decentralization of generation.

Adherence to the highest professional standards at this stage of PREPA's rebuilding is of paramount importance. PREPA must not only forge a solid plan for the grid, it must also build confidence in its capacity to do so. We appreciate the TAC's attention to this matter and we request that you circulate this letter to the members of the PREPA Transformation Advisory Council. We would welcome additional dialogue with TAC and/or PREPA on this topic.

Sincerely,



Cathy Kunkel
Energy Analyst, IEEFA



Anna Sommer
President, Sommer Energy, LLC

Cc: Walter Higgins, Executive Director, PREPA