

**GOVERNMENT OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION**

IN RE: REVIEW OF THE PUERTO RICO
ELECTRIC POWER AUTHORITY
INTEGRATED RESOURCE PLAN

CASE NO.: CEPR-AP-2018-0001

SUBJECT: IRP Prefiling Process (Phase 1)
Procedure Before the Commission.

ORDER

I. INTRODUCTION AND HISTORY OF THE PROCEEDINGS

On March 15, 2018, the Puerto Rico Energy Commission ("Commission") issued a Resolution and Order starting the instant proceeding.¹ On April 24, 2018, the Commission issued Regulation 9021² which, among other things, establishes new procedures to allow for more public participation and increased transparency in the development of the Puerto Rico Electric Power Authority's ("PREPA") Integrated Resource Plan ("IRP"). Specifically, the IRP process is separated into two (2) phases. Section 3.01 of Regulation 9021 sets forth the process for Phase 1 which is the IRP prefiling process.³ During Phase 1, the Commission may schedule one or more technical conferences for the purpose of gathering "information regarding the methodology and contents contemplated by PREPA for its new IRP proposal."⁴ The purpose of the technical conference has been clearly articulated by the Commission:

The purpose of these technical conferences is to provide an opportunity for the Commission to ensure PREPA's IRP filing will reasonably comply with the requirements set forth in this Regulation and the analysis conducted therein will be sufficiently robust so as to comply with public policy goals and meet Commission expectations as to the quality of the analysis and information provided. These proceedings will also provide an opportunity for PREPA to seek clarifications from the Commission with regards to compliance with the requirements set forth in this Regulation.⁵

¹ See Resolution and Order, Commencement of Review Proceeding and Order Establishing Initial Submission Timeline.

² Regulation on the Integrated Resource Plan for the Puerto Rico Electric Power Authority.

³ See Regulation 9021, §3.01.

⁴ *Id.* §3.01(A).


⁵ *Id.*

Regulation 9021 further establishes that the Commission may require PREPA to provide specific information regarding the development of the proposed IRP.⁶ In accordance with Regulation 9021 and the May 29, 2018 Order⁷ in the instant proceeding, the Commission establishes the following procedure for the IRP Prefiling Process.

II. IRP PRE-FILING PROCESS – PROCEDURE BEFORE THE COMMISSION

Phase 1 of the IRP proceeding is informal in nature and has the purpose of providing PREPA with valuable feedback as it develops its IRP. The Commission invites interested parties to participate in this Prefiling Process. Notwithstanding the above, said participation shall not be construed as granting intervenor status to interested parties. Petitions to intervene will be addressed by the Commission during the formal IRP proceeding.⁸

The process in Phase 1 of the IRP proceeding shall be as follows:

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1. PREPA shall respond to the attached information requirements (Appendix A) on or before August 1, 2018.
 2. The Commission will hold a Public Technical Conference on August 14, 2018 at 8:30 a.m. at the Commission's Hearing Room, located at Seaborne Plaza, 268 Muñoz Rivera Ave., 8th floor, San Juan. PREPA should be prepared to provide an overview of its IRP process and be prepared to answer questions from the Commission with regard to both, its presentation and the information requirements.
 3. Stakeholders may submit questions and requests to the Commission for consideration in establishing the agenda for the Technical Conference. Such questions and requests shall be submitted no later than August 7, 2018.
 4. After the Technical Conference, the Commission will evaluate the information received to date and may issue a subsequent order which shall contain any specific scenarios or special topics that PREPA shall be required to evaluate and include in the IRP update.

Once PREPA files its IRP, the Commission will review it for completeness in accordance with Section 3.02 of Regulation 9021. Once the Commission determines the IRP filing is complete, it will issue an Order establishing the procedural calendar for its review, including the instructions and timeline for interest parties to file their motions to intervene.

⁶ *Id.* §3.01(B).

⁷ The Commission ordered PREPA to file an updated IRP for Commission review and approval no later than October 31, 2018.

⁸ See Regulation 9021, §3.03.

Be it notified and published.



Edison Avilés Deliz
Chairman

Ángel R. Rivera de la Cruz
Associate Commissioner

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Commission has so agreed on July 2, 2018. I also certify that on this date a copy of this Order was notified by electronic mail to the following: n-vazquez@aeep.com, c-aquino@aeep.com and to n-ayala@aeep.com.

Autoridad de Energía Eléctrica de Puerto Rico

Attn.: Nitza D. Vázquez Rodríguez

Nélida Ayala Jiménez


Carlos M. Aquino Ramos

PO Box 364267

Correo General

San Juan, PR 00936-4267

For the record, I sign this in San Juan, Puerto Rico, today July 2, 2018.



Brenda Liz Mulero Montes
Interim Clerk

Appendix A

Information Requirements on PREPA's IRP Development

PREPA shall respond and file the following information at the Commission on or before August 1, 2018. References to sections refer to Regulation 9021.

1. Provide the name of each external organization that PREPA expects to contribute to the development of the 2018 IRP. This shall include any contractor or consultant under contract with PREPA as well as all identified subcontractors. Describe the role and responsibilities of each such contractor. PREPA may satisfy this question by providing all contracts and scopes of work with such entities.
2. Identify any provision of the IRP regulation for which PREPA intends to request a waiver for this proceeding.
3. Sections 1.13(B) and 2.01(F)(1): Describe in detail the native electronic formats of each document, tool, work paper, or model that PREPA will use to develop the IRP.
4. Section 2.01(A): What are the start and end dates of the planning period to be used in the IRP?
5. Section 2.01(F)(2): What computer models and software will PREPA use in the development of the IRP? Will PREPA provide the model, including software and licenses, to the Commission and its consultants? If not, what alternative means of providing reasonable access does PREPA intend to use?
6. Section 2.03 (B): Provide a description of the federal, state and municipal standards or rules that could impact PREPA's the requirements for energy efficiency, renewable energy, fuel alternatives and other resource requirements.
7. Section 2.03 (B): Describe the status of PREPA's plan for complying with environmental requirements, including but not limited to, the Mercury and Air Toxics Standards.
8. Section 2.03 (B): Include a discussion of the legislative changes that have occurred since the last IRP filing that could impact PREPA's system and the IRP Update.
9. Section 2.03(C)(1)(c): Describe the sources and methodology used to develop the historic peak and off-peak demand and the energy profiles on peak and off-peak demand days. What methodology will PREPA use for estimates, where metered (or otherwise measured) data is not available?
10. Section 2.03(C)(1): Provide the inputs and methodology to determine preliminary load forecast data and describe in detail the methodology to estimate the magnitude and direction of changes in load for the next ten years.

11. Section 2.03(C)(1)(e): Has PREPA completed the evaluation of the prior load forecast? If so, provide it. If not, when will it be available?
12. Section 2.03(C)(2)(a): Provide the preliminary load scenario assumptions for the three baseline load forecasts. Explain the underlying rationale for each, and specifically address how "demand destruction" or island load loss following the 2017 hurricanes is factored into these load scenario assumptions.
13. Section 2.03(C)(2)(a): If PREPA chooses to conduct only three baseline load forecasts, PREPA should be prepared at the technical conference to address why it believes only three baseline load forecasts are sufficient.
14. Section 2.03(C)(2)(b): Which economic factors will PREPA account for in developing forecasts of electricity consumption? What are the data sources to be used for those factors?
15. Section 2.03(C)(2)(b): If PREPA has defined preliminary load scenario assumptions, provide them.
16. Section 2.03(C)(2)(d): How will PREPA incorporate naturally occurring energy efficiency in its load forecasts? Describe the assumptions PREPA intends to use for naturally occurring energy efficiency.
17. Section 2.03(C)(2)(g): What inputs and methodologies is PREPA expecting to use to quantify the impact on the load forecast from existing demand-side resources, anticipated changes in rate design, building codes and standards, and deployment of distributed generation (including solar PV and microgrids)?
18. Section 2.03(D): Describe the impact of the expected transformation process on PREPA's existing resources, due to the implementation of the Puerto Rico Electric System Transformation Act, and on how they are analyzed or modeled in the IRP.
19. Section 2.03(D): Describe how the IRP will consider the impact of the 2017 hurricanes on the operation and maintenance of PREPA's existing generation resources.
20. Section 2.03(D)(2): What demand-side resources is PREPA currently implementing, if any?
21. Section 2.03(F): How does PREPA expect that the FOMB's "critical project" process under Section 503 of PROMESA will impact the identification of new supply-side resources?
22. Section 2.03(F): Describe the impact of the expected transformation process on PREPA's options for new supply resources, due to the implementation of the Puerto Rico Electric System Transformation Act, and on how they are analyzed or modeled in the IRP.

23. Section 2.03(F): How will PREPA take the location of potential new supply-side resources into account in its IRP? Will this analysis include transmission constraints and capacity? How will it account for resilience impacts of generator location?
24. Section 2.03(F): How is PREPA considering the potential for customer use of microgrids in the IRP? How is PREPA considering the potential for utility-owned or operated microgrids in the IRP?
25. Section 2.03(F)(3): Describe in detail the methodology PREPA intends to use to characterize demand-side resources, including energy efficiency and demand response, for inclusion in the Resource Plan analysis.
26. Section 2.03(F)(4): Identify the methods and data sources PREPA intends to use to incorporate current cost and performance standards for utility-scale short-duration (less than 2-hour) battery energy storage systems into the resource selection process.
27. Section 2.03(F)(4): Identify the methods and data sources PREPA intends to use to incorporate current cost and performance standards for utility-scale longer-duration (equal to and greater than 2-hour) battery energy storage systems into the resource selection process.
28. Section 2.03(F)(4): Identify the methods and data sources PREPA intends to use to incorporate current cost and performance standards for distributed resource (e.g. small scale) battery energy storage systems into the resource selection process.
29. Section 2.03(F)(4): Identify the methods and data sources PREPA intends to use to incorporate current cost and performance standards for thermal energy storage systems, such as ice-storage HVAC systems, into the resource selection process.
30. Section 2.03(G): Describe the data sources and methods that PREPA intends to use for each of the seven identified inputs in section 2.03(G)(1).
31. Section 2.03(G)(2): What exogenous elements will PREPA include in its forecasts? What data sources and methods will PREPA use to define these elements? How will PREPA develop a range of possible values for each element?
32. Section 2.03(G)(2): If PREPA has defined scenarios it expects to use in IRP analysis, describe each scenario.
33. Section 2.03(G)(2): If, pursuant to Section 3.01(B) of Regulation 9021, the Commission were to require PREPA to consider different scenarios than the ones considered by PREPA in the development of the IRP, identify the information the Commission would need to specify or define such scenarios.

34. Section 2.03(H)(1)(a): How many Resource Plans does PREPA intend to analyze in the IRP?
35. Section 2.03(H)(1)(a)(ii): Describe the process PREPA intends to use to incorporate stakeholder input and Commission requirements into the Resource Plan.
36. Section 2.03(H)(2)(a): Identify the Capacity Expansion Model that PREPA will use to develop Resource Plans.
37. Section 2.03(H)(2)(b): Describe the methodology PREPA intends to use to define the range of sensitivity analyses to be performed around each Resource Plan.
38. Section 2.03(H)(2)(b)(iii): Identify which method of sensitivity analysis PREPA intends to use, from those identified in this subsection or otherwise.
39. Section 2.03(H)(2)(d)(ii): Identify each criterion that PREPA intends to use, in addition to the present value of revenue requirements, when selecting the Preferred Resource Plan.
40. Section 2.03(I): Provide a list of key caveats and limitations that PREPA anticipates in its analysis and modeling mechanisms, including any significant regulatory assumptions (such as the potential sale or lease of its assets) that will impact PREPA's Preferred Resource Plan.
41. Section 2.03(J)(2): Identify the tools and methods PREPA intends to use to complete the Transmission and Distribution Systems Analyses.
42. Section 2.03(J): Describe how the IRP will consider the impact of the 2017 hurricanes on the configuration, operation, and maintenance of PREPA's transmission resources.
43. Section 2.03(J): Identify the transmission system operating standards PREPA will use when considering supply or demand-side resource expansion alternatives (e.g., N-1, N-1-1, N-2; or specific NERC standards).
44. Section 5.01: Identify the performance metrics on which PREPA intends to report in the IRP. Describe in detail the methodology PREPA intends to use to estimate the impact of each resource action in the IRP on the performance metrics.
45. Identify the individuals from PREPA or its contractors or consultants who will attend the Technical Conference, along with their areas of expertise and responsibility.