



**GOVERNMENT OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

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

CASE NO.: CEPR-AP-2018-0001

SUBJECT: Resolution on National's Comments
regarding Strategy 1 Modeling.

RESOLUTION

On November 30, 2018, National Public Finance Guarantee Corporation ("National") filed a document titled *National's Comments regarding Strategy 1 Modeling* ("Document") in the instant case. In the Document, National expressed that the approach used by the Puerto Rico Electric Power Authority ("PREPA") to model Strategy 1 in the Integrated Resource Plan ("IRP") will render it difficult or impossible for Strategy 1 to be properly considered.¹ In support of its argument, National expressed that "[f]irst, the current approach is to model Strategy 1 only under a single scenario that is entirely different from the scenarios under which Strategies 2 and 3 are modeled."² National also stated that "the current approach is to model Strategy 1 only under a Base load forecast, whereas Strategies 2 and 3 are modeled under a range of load forecasts."³ According to National, this selective modeling of Strategy 1 will hinder the IRP process, because, in National's view, it will preclude an appropriate, same-basis comparison of the three strategies.⁴

Finally, National requested the Puerto Rico Energy Bureau ("Energy Bureau") to "(i) order PREPA to submit a written response setting forth the reasons, and supporting data, as to why it proposes to model Strategy 1 under wholly different parameters from Strategies 2 and 3; and (ii) order PREPA to run LTCE models for Strategy 1 under a full range of scenarios, load forecasts and sensitivities."⁵

Since the instant case is still in the IRP Prefiling Process (Phase 1), as defined on Regulation 9021,⁶ no party may request intervention until PREPA files its IRP before the

¹ See Document, p. 1.

² Id.

³ Id.

⁴ Id.

⁵ Id., at p. 6.

⁶ Regulation on Integrated Resource Plan for the Puerto Rico Electric Power Authority, Puerto Rico Energy Bureau, April 24, 2018.

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Energy Bureau⁷. Therefore, as of today, National is not an intervenor in this case. Notwithstanding the above, the Energy Bureau deemed reasonable and pertinent to address National's comments, as it did with other comments previously submitted during this phase of the process.

I. Discussion of National's concerns.

a) National's argument regarding the use of Strategy 1 models and Scenario 5.

As defined by PREPA, Strategy 1 encompasses a traditional, centralized energy program, which emphasizes on reliability and economic metrics, while Strategies 2 and 3 reflect a more distributed approach to generation.⁸ Similarly, Scenario 5, as defined by PREPA,⁹ is the scenario under which all options for gas availability are possible. Therefore, Scenario 5 models a world in which it is **possible** to develop natural gas import facilities in four places (Aguirre, San Juan, Yabucoa, and Mayagüez). Based on its arguments, it appears that National incorrectly assess that this Scenario **requires** the construction of all four facilities. Scenario 5 is an appropriate pair for Strategy 1 because they both reflect modeling choices, in generation planning and in resource availability, that allow the broadest set of potential resources. For an optimizing capacity expansion model, this is an appropriate way to define a "base case." Other Strategies and Scenarios are more restrictive, which can, in turn, be likely to increase costs in exchange for some benefits (e.g., less permitting risk or a more resilient grid).

National's concerns with regards to examining Strategy 1 in the context of Scenario 5, and to find the least cost total solution, would not be addressed by modeling Strategy 1 along with Scenarios 1, 2, 3, or 4. These Scenarios include restrictions in resource availability, relative to Scenario 5, which would necessarily mean they produce results with no meaningful value to the Energy Bureau, PREPA, or stakeholders.

b) National's argument regarding modeling Strategy 1 only under a Base load forecast.

National argues that Strategy 1 is modeled on Scenario 5 only, while Strategies 2 and 3 are modeled each under Scenarios 1 through 4, but not Scenario 5. They also argue that a strategy based on fuel combustion rather than renewable generation will perform better under a low load sensitivity. The modeling approach that the Energy Bureau has approved

⁷ The Energy Bureau ordered PREPA to submit its IRP no later than January 21, 2019. See Resolution and Order, PREPA's Compliance with the September 28th Order and IRP Timeline, November 6, 2018, Case No. CEPR-AP-2018-0001.

⁸ See PREPA IRP Strategies, Scenarios, Sensitivities and Risk Analysis Document of PREPA's (1) Compliance with the Energy Bureau's September 5th and 18th Orders and (2) Informative Motion Regarding IRP Timeline, September 26, 2018, Case No. CEPR-AP-2018-0001, p. 1.

⁹ *Id.*, p. 3.

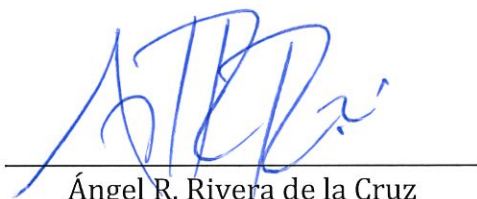
will produce an appropriate base case for comparison with other strategies, scenarios and sensitivities.¹⁰ As part of its IRP, PREPA has devised five sensitivities along with two alternate load forecasts, for a total of seven possible additional cases. Furthermore, as part of the analysis for Strategy 1, PREPA is set to model one of these sensitivities pertaining to a high gas prices case (Sensitivity 5).¹¹

It is not clear to the Energy Bureau that additional Strategy 1 scenarios with lower or higher load would result in sufficient incremental value beyond what will be obtained through the core Strategy 1, Scenario 5 run. Furthermore, the Energy Bureau anticipates that the additional information that could be obtained from examining Strategy 1 under additional load forecasts will not provide significant benefits relative to the time and effort spent on incorporating new runs to the IRP.

II. Conclusion

After a thorough review of the Document, the Energy Bureau determines that the modeling approach previously approved for the development of the IRP will provide an appropriate range of scenarios to ensure a robust assessment of the least-cost path for electrical resource development in Puerto Rico, in accordance with applicable laws and regulations.

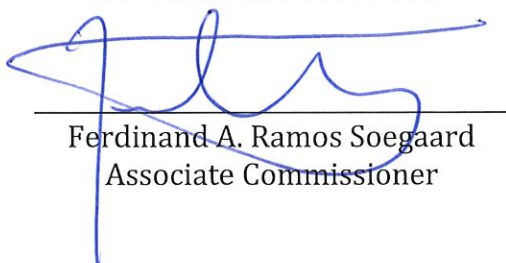
Be it notified and published.



Ángel R. Rivera de la Cruz
Associate Commissioner



Lillian Mateo Santos
Associate Commissioner



Ferdinand A. Ramos Soegaard
Associate Commissioner



José J. Palou Morales
Associate Commissioner

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on December 18, 2018. The Chairman Edison Avilés Deliz dissented without written opinion. I also certify that on this date a copy of this Resolution was notified by electronic mail to the following: n-vazquez@aepr.com, astrid.rodriquez@prepa.com,

¹⁰ See Resolution and Order, September 28, 2018, Case No. CEPR-AP-2018-0001.

¹¹ *Id.*, at p. 8.



jorge.ruiz@prepa.com, epo@amgprlaw.com, loiver@amgprlaw.com. I also certify that today, December 18, 2018, I have proceeded with the filing of the Resolution issued by the Puerto Rico Energy Bureau and I have sent a true and exact copy to the following:

Puerto Rico Electric Power Authority

Attn.: Nitza D. Vázquez Rodríguez
Astrid I. Rodríguez Cruz
Jorge R. Ruíz Pabón
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ADSUAR MUÑIZ GOYCO SEDA & PÉREZ
OCHOA, PSC
Attn: Eric Pérez- Ochoa
Luis A. Oliver- Fraticelli
208 Ponce De Leon Ave. Suite 1600
San Juan, P.R. 00936

For the record, I sign this in San Juan, Puerto Rico, today December 18, 2018.

María del Mar Cintrón Alvarado
Clerk