

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

NEPR

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IN RE:

**REVIEW OF THE PUERTO RICO
ELECTRIC POWER AUTHORITY
INTEGRATED RESOURCE PLAN**

NO. CEPR-AP-2018-0001

SUBJECT:
PREPA's Rebuttal Testimony

**REBUTTAL TESTIMONY OF EFRAN PAREDES MAYSONET IN SUPPORT OF
PREPA'S DRAFT INTEGRATED RESOURCE PLAN**

TO THE HONORABLE ENERGY BUREAU:

COMES NOW the Puerto Rico Electric Power Authority and hereby submits the Written Rebuttal Testimony of Efran Paredes Maisonet in support of PREPA's draft Integrated Resource Plan.

In San Juan, Puerto Rico, this 20th day of December 2019.

/s/ Katuska Bolaños

Katuska Bolaños

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CERTIFICATE OF SERVICE

It is hereby certified that, on this same date I have filed the above motion using the Energy Bureau's Electronic Filing System, at the following address: <http://radicacion.energia.pr.gov> and that a courtesy copy of the filing was sent via e-mail to: sierra@arctas.com; tonytorres2366@gmail.com; cfl@mcvpr.com; gnr@mcvpr.com; info@liga.coop; amaneser2020@gmail.com; hriviera@oipc.pr.gov; jriviera@cnslpr.com; carlos.reyes@ecoelectrica.com; ccf@tcmrslaw.com; manuelgabrielfernandez@gmail.com; acarbo@edf.org; pedrosaade5@gmail.com; rmurthy@earthjustice.org; rstgo2@gmail.com; larroyo@earthjustice.org; jluebke@earthjustice.org; acasellas@amgprlaw.com; loliver@amgprlaw.com; epo@amgprlaw.com; robert.berezin@weil.com; marcia.goldstein@weil.com; jonathan.polkes@weil.com; gregory.silbert@weil.com; agraitfe@agraitlawpr.com; maortiz@lvprlaw.com; rnegrón@dnlawpr.com; castrodiéppalaw@gmail.com; voxpopulix@gmail.com; paul.demoudt@shell.com; javier.ruajovet@sunrun.com; escott@ferraiuoli.com; SProctor@huntonak.com; GiaCribbs@huntonak.com; mgrpcorp@gmail.com; aconer.pr@gmail.com; axel.colon@aes.com; rtorbert@rmi.org; apagan@mpmlawpr.com; mpietrantoni@mpmlawpr.com.

In San Juan, Puerto Rico, this 20th day of December, 2019.

s/ Katuska Bolaños
Katuska Bolaños

**GOVERNMENT OF PUERTO RICO
PUERTO RICO ENERGY BUREAU**

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

No. CEPR-AP-2018-0001

SUBJECT: Rebuttal Testimony of Efran
Paredes Maisonet

Rebuttal Testimony of

EFRAN PAREDES MAISONET

Director, Planning and Environmental Protection
Puerto Rico Power Authority

In Support of Draft Integrated Support Plan

December 20, 2019

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1 **I. INTRODUCTION**

2 **A. Witness Identification**

3 **Q. Please state your name, title, employer, and business address.**

4 A. My name is Efran Paredes Maisonet. I am Director, Planning and Environmental
5 Protection Directorate, of the Puerto Rico Electric Power Authority (“PREPA” or the
6 “Authority”). My business address is 1110 Ponce de León Avenue, San Juan, Puerto Rico
7 00907.

8 **Q. On whose behalf are you testifying before the Puerto Rico Energy Bureau (the
9 “Energy Bureau”) (formerly known as the Puerto Rico Energy Commission)¹ in this
10 proceeding?**

11 A. I am testifying on behalf of PREPA.

12 **Q. Have you previously testified or made presentations before the Energy Bureau?**

13 A. Yes, I have spoken at conferences and technical hearings before the Energy Bureau, and
14 submitted testimony dated June 14, 2019.

15 **B. Summary of Direct Testimony**

16 **Q. What are the purposes and subjects of your Direct Testimony?**

17 A. My Direct Testimony addresses several statements contained in the written testimonies of
18 some of the Intervenors of the IRP process, in particular to allegations that the June 2019
19 IRP should be rejected because it did not follow Act 17-2019 requirements, that its demand
20 projections were too low and that its energy efficiency reductions too aggressive. Also, I

¹ References in my testimony to the Energy Bureau include the former Puerto Rico Energy Commission when applicable.

21 address allegations that the selection of Siemens to prepare the IRP was improper due to
22 conflicts of interest.

23 Q. **Are there any exhibits attached to your testimony?**

24 A. Yes. My testimony includes the following attachment:

- 25 • PREPA Exhibit (“Ex.”) 1: My *curriculum vitae*.

26 C. **Qualifications and Professional Background**

27 Q. **What is your educational background?**

28 A. I have a M.S.S.E. – Power; University of Puerto Rico, Mayagüez Camus, 1999; and a
29 B.S.S.E. – Power; University of Puerto Rico, Mayagüez Campus, 1997.

30 Q. **How long have you been Director, Planning and Environmental Protection
31 Directorate of PREPA and what are your duties and responsibilities in that position?**

32 A. I became Director, Planning and Environmental Protection Directorate in Fall 2016. In
33 brief, my duties are that I am responsible for the short and long-term development of the
34 generations resources and T&D infrastructure necessary to provide the highest quality
35 service at the lowest cost in harmony with current environmental regulations.

36 Q. **What positions have you previously held at PREPA?**

37 A. My prior positions at PREPA are described in PREPA Ex. 7.01.

38 Q. **Do you hold any professional licenses?**

39 A. Yes. I hold Puerto Rico Professional Engineer License #17776. I am a member of the
40 Puerto Rico Professional College of Engineers and Land Surveyors.

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41 **II. REBUTTAL OF INTERVENORS WRITTEN**
42 **TESTIMONY**

43 **Q. Witnesses for Intervenors Environmental Defense Fund, Not For Profit Intervenors,**
44 **AES Puerto Rico and Puerto Rico Solar Energy Industries Association Corp. allege**
45 **that the IRP should be rejected, and a new IRP should be submitted, that:**

- 46 • **constrains all modeling runs to follow Act 17 requirements;**
- 47 • **includes higher demand forecasts (the IRP’s projections of demand are**
48 **too low);**
- 49 • **assumes lower customer-owned generation build-out; and**
- 50 • **assumes energy efficiency reductions that do not exceed Act 17**
51 **requirements (energy efficiency projections are too aggressive).?**

52 **Do you agree with this position?**

53 **A.** No, I do not. On October 29, 2019 the Puerto Rico Energy Bureau (PREB) issued its 9th
54 Requirement of Information (ROI), which required PREPA and Siemens to, among other
55 things, quantify the impact of energy efficiency based on two alternate futures for
56 customer demand – a “no energy efficiency” case and a “low energy efficiency” case (1/3
57 of the energy efficiency reflected in the base case). As such, these scenarios directly
58 impact the forecasted demand. Siemens performed an analysis of the scenarios requested
59 by PREB (“no energy efficiency” case and “low energy efficiency” case). The simulations
60 included, among other things, compliance with Act 17-2019 targets. In general, the results
61 of the simulations confirmed the findings of the June 2019 IRP filing that pointed towards
62 the ESM being the preferred plan if the demand did not drop as expected. Please refer to

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63 PREPA's responses to ROI 9 filed on December 6, 2019 (document titled AP-2018-0001
64 PREB ROI Set 9 12-06-2019 2nd Supp.rev JMC) for further information.

65 PREPA believes that the scenarios evaluated under the IRP, including those studied under
66 PREB ROI 9 (which address the issues presented by the intervenors under this discussion),
67 consider a variety of demand and supply scenarios and provide an adequate basis for
68 PREB's evaluation. PREPA understands that delays in approving the IRP will have the
69 unintended consequences of deferring savings in fuel and energy costs, and prolong the
70 PR grid's vulnerability to future disruptive events.

71 **Q. Environmental Defense Fund witness alleged that the use of Siemens to prepare the**
72 **IRP was improper, given alleged conflicts of interest between Siemens interests as**
73 **consultant and commercial party. Do you agree with this position?**

74 **A.** No, I do not. As stated before in PREPA's response to Environmental Defense Fund
75 ROI #1, Siemens has signed an Organization Conflict of Interest (OCI) agreement with
76 all involved consulting personnel signed the appendix on file that created an isolation
77 between Siemens Consulting unit and Siemens Power & Generation unit(marketing). In
78 addition, Siemens has consulting NDA and individual NDA in place for the Siemens
79 consulting unit for this IRP. Both documents are filed with PREB.

80 **Q. SESA-PR witness alleges that the IRP's projections of demand are too low, because**
81 **energy efficiency projections are too aggressive, and that the cumulative impact of**
82 **efficiency measures through 2025 will be a demand reduction of 1.7%, not 12% as**
83 **assumed in the IRP. Do you agree with this position?**

84 A. No, I do not. PREB's ROI 9 required PREPA and Siemens to evaluate scenarios with no
85 energy efficiency and low energy efficiency. These scenarios were evaluated and the
86 results discussed in PREPA's response to PREB ROI 9 – please refer to PREPA's
87 response to the allegations made by Environmental Defense Fund, Not For Profit
88 Intervenors, AES Puerto Rico and Puerto Rico Solar Energy Industries Association Corp
89 discussed above.

90 **III. CONCLUSION**

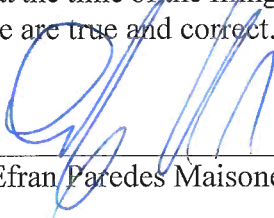
91 Q. **Does this complete your Direct Testimony?**

92 A. Yes.

93

ATTESTATION

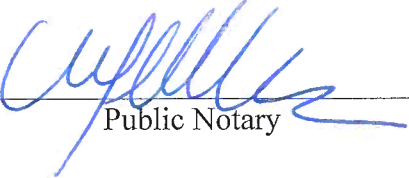
Affiant, Efran Paredes Maisonet, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony and the information, documents and workpapers attached thereto and the portions of the IRP filing I am sponsoring constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein at the time of the filing. Affiant further states that, to the best of his knowledge, his statements made are true and correct.



Efran Paredes Maisonet

Affidavit No. 1551

Acknowledged and subscribed before me by Efran Paredes Maisonet, in his capacity as Director, Planning and Environmental Protection Directorate, for the Puerto Rico Electric Power Authority, who is personally known to me or whom I have identified by means of his driver's license number _____, in San Juan, Puerto Rico, this 20 day of December 2019.



Public Notary



EXENTO PAGO ARANCEL
LEY 47
4 DE JUNIO DE 1982

Efran Paredes Maisonet

Degrees

M.S.S.E. – Power; University of Puerto Rico, Mayagüez Campus, 1999

B.S.S.E. – Power; University of Puerto Rico, Mayagüez Campus, 1997

Experience

Puerto Rico Electric Power Authority (PREPA)

Director of Planning and Environmental Protection Directorate

Responsible for the short and long-term development of the generation resources and T&D infrastructure necessary to provide the highest quality service at the lowest cost in harmony with current environmental regulations.

August 2016 – present

Full Time

Puerto Rico Electric Power Authority (PREPA)

Planning and Research Division Head

Supervise the main areas of the planning perspective – Generation, Transmission, Distributions, Renewables, Engineering Systems, Rates and Forecast. Responsible of prepare PREPA's Capital Improvement Program.

October 2015 – August 2016

Full Time

Puerto Rico Electric Power Authority (PREPA)

General Engineer Super (Planning and Research Division – Transmission Depart)

Transmission System Planning, Load Flow Analysis, Breaker Duty Analysis, Short Circuit Analysis, Dynamic and Stability Studies, New Generation and Renewable Generation Interconnection Studies, Renewable Generation Evaluation of Compliance with PREPA's Minimum Technical requirements, Evaluation of Renewable Energy Utility Scale and Net Metering Projects Interconnection, Power Factor Correction, Research and Evaluation of New Technologies.

January 2013 - October 2015

February 2000 - March 2009

Full Time

Office of the Governor of Puerto Rico

Deputy Advisor to the Governor: Energy and Environment

Evaluate and recommend necessary changes to existing energy and environmental public policy and regulations from various government agencies. Recommend and establish new policies and goals for energy efficiency and conservation, renewable and alternate energy sources.

March 2009-December 2012

EPA

Full Time

Academic Experience

**Polytechnic University of Puerto Rico
Lecturer II**

Power System Analysis II, Power System Analysis Lab, Electromechanical Energy Conversion I, Electromechanical Energy Conversion Lab I, Circuit Analysis I

August 1999 – present
Part Time

Certifications or Professional Registrations

Puerto Rico, Professional Engineer (PR) License #17776

Membership in Professional Organizations

College of Engineers & Surveyors of PR (CIAPR)

CEPR