American Council for an Energy-Efficient Economy
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Via e-mail: **comentarios@jrsp.pr.gov**

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Puerto Rico Energy Bureau

Re: Regulation for Energy Efficiency
Case No.: NEPR-MI-2021-0005
Subject: Public Comment of the American Council for an Energy-Efficient Economy

Dear Members of the Puerto Rico Energy Bureau:

The American Council for an Energy-Efficient Economy (ACEEE) welcomes this opportunity to provide comments on the above-referenced docket, in response to the Puerto Rico Energy Bureau's Proposed Regulation for Energy Efficiency and Demand Response, dated April 22, 2021. ACEEE is a nonprofit research organization based in Washington, D.C. that conducts research and analysis on energy efficiency. ACEEE is one of the leading groups working on energy efficiency issues in the United States at the national, state, and local levels. We offered comments on the most recent energy efficiency docket in 2019, and today's comments are informed by our work on energy efficiency policy and programs across all U.S. states and in many regions around the world.[1]

ACEEE is pleased to see the Bureau take this crucial action to implement the energy savings requirement in Act 17-2019. Energy efficiency investments lower customer bills, reduce energy waste, and stimulate local economic development by attracting businesses and improving business competitiveness. Because utility energy efficiency programs generally cost less than supply-side options (about 2 to 5 cents per kilowatt-hour, much less than the cost of new fossil power plants), investments in energy efficiency reduce costs for *all* ratepayers by allowing utilities to spend less on additional capacity needs.[2] These savings are particularly valuable given the relatively high cost of electricity in Puerto Rico, and Puerto Rico's ambitious new requirement for 100% renewable power generation by 2050.

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[1] ACEEE, 2019. Public Reply Comment of the American Council for an Energy-Efficient Economy. NEPR-MI-2019-0015

[2] ACEEE, 2021. *The Cost of Saving Electricity for the Largest U.S. Utilities: Ratepayer-Funded Efficiency Programs in 2018.* https://www.aceee.org/topic-brief/2021/06/cost-saving-electricity-largest-us-utilities-ratepayer-funded-efficiency

Below, we offer comments and recommendations building on our research into utility and state energy efficiency programs around the country. Specifically, we respectfully recommend that the Bureau:

1. Create a consistent and stable funding source for cost recovery of energy efficiency programs
2. Set the first cycle as a "Quick Start" program (with all savings eligible to count toward goals) while key studies on baseline, avoided costs and potential are conducted, and begin a full cycle in March 1, 2024. (Sections 3.02, 3.04)
3. Avoid unnecessary budget constraints on the utility's ability to meet the goal (Section 3.05)
4. Address utility business model reform comprehensively to ensure energy efficiency is on an equal playing field with other resources (Section 3.02)
5. Ensure the stakeholder engagement process has the resources, data, and structure needed for success (Section 3.07)

In addition, we note areas in the rule where clarification is needed to ensure that the utility and interested stakeholders are aligned towards the same outcome. Specifically, we recommend additional clarity on the following issues, each of which affect the target itself as well as implementation:

1. Whether the default cost-effectiveness test, absent a Puerto Rico Cost test, is a Utility Cost Test or Total Resource Cost Test (Sections 4.01 and 4.02)
2. The definition of low income and hard-to-reach customers (Section 3.02)

RECOMMENDATIONS:

1. Create a consistent and stable funding source for cost recovery of energy efficiency programs

Successful energy efficiency programs have a stable mechanism in place to collect funds from ratepayers, either via a system benefit charge or through the utility rate base. Just as ratepayers are charged for the costs of generation, transmission and distribution, it is appropriate to include the costs of cost-effective energy efficiency programs in customer rates.

Given the importance of stable funding, ACEEE classifies a state as having an energy efficiency resource standard for our *State Scorecard* only once it has both a long term goal (of three or more years) and sustainable funding to support that goal in place.[3] The Proposed Regulation appears to authorize cost recovery for EE in Section 3.05(C), which states that "the Energy Bureau's decision regarding the Three-Year EE Plan shall serve as approval for the recovery for the net cost of the approved EE programs (including EM&V and other studies) through PREPA's rates for transmission and distribution service." Such cost recovery is crucial as a predictable, long-term source of funding to ensure the success of Puerto Rico's energy efficiency goals.

There are no states achieving meaningful energy savings without a form of direct cost recovery, and because program costs reduce utility revenues on a dollar-for-dollar basis, the reasonable, timely opportunity for recovery of these costs is a minimum requirement for the implementation of energy efficiency programs by utilities. Recovery of efficiency program costs takes place through some

[3] Berg, W. et al. 2020. *The 2020 State Energy Efficiency Scorecard*. www.aceee.org/research-report/u2011

combination of base rate adjustments, system benefits charges and other surcharges. Less frequently, utilities are allowed to treat efficiency programs costs like a physical investment, adding the amortized cost and an approved return on capital to the revenue requirement, which is then passed on to the customer as an increase in per-kilowatt-hour or per-therm rates at the next rate case.

We commend the Bureau for including the language in Section 3.05 and 3.06 that directs PREPA to seek revenue sources to offset ratepayer funding for EE programs, such as grants, federal funds, or compensation for services provided. Leveraging outside funding is an important strategy to enhance the reach of energy efficiency programs.[4] However, based on the proportion of the rules dedicated to outside funding relative to traditional cost recovery, we are concerned about a potential overreliance on funds that may be variable over time and may be difficult to plan for. Further, such sources of funding are unlikely to represent the full range of funding required to support all cost-effective energy efficiency or to meet the achievable but ambitious 30% by 2040 requirement. Best practice suggests that these funds should be used to increase the scale of EE programs and not to replace core ratepayer funding for EE.

2. Set the first cycle as a "Quick Start" program (with all savings eligible to count toward goals) while key studies on baseline, avoided costs and potential are conducted, and begin a full cycle in March 1, 2024. (Sections 3.02, 3.04)

Section 3.04 of the Proposed Regulation includes quick-start pilots or programs, an important tool with a successful track record in helping to ramp up programs in some leading states.[5] However, it appears that these can only be proposed before the first Three-Year EE plan is filed before December 1, 2021. Given that Puerto Rico will be starting energy efficiency and demand response programs from scratch, a start-up period is required to collect necessary baseline, avoided cost, and potential data, and to build the market of local contractors, retailers, and businesses included in the value chain of program implementation. As a result, ACEEE recommends that the first Three-Year plan (which is actually two years, from July 1, 2022 to June 30, 2024) be structured as a Quick-Start Plan.

We recommend that such a period include three components:

1. Stakeholder engagement and market development, built on meaningful outreach and education to communities, customer groups, and trade allies so that PREPA's plan is designed to meet customer and local market needs.
2. Savings from the period should count toward the 2040 cumulative annual savings target, but PREPA would not have binding energy savings targets, nor would they be subject to potential penalties or eligible for performance incentives.
3. During this period, all studies needed to inform energy efficiency targets and program designs (notably, the market baseline and potential study and avoided cost study) will be completed.

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[4] Hayes, S. and C. Gerbode. *Braiding Energy and Health Funding for In-Home Programs: Federal Funding Opportunities.* https://www.aceee.org/research-report/h2002

[5] Southeast Energy Efficiency Alliance, 2014. *Energy Efficiency Quick Start Programs: A Guide to Best Practice.* https://www.energy.gov/sites/default/files/2017/11/f39/Quick-Start-Best-Practices-041414-FINAL1.pdf

Such data is necessary to submit a well-structured plan based on the portion of the target allocated to PREPA.

Because adoption of efficient technologies is likely low in Puerto Rico (for example, based on the lack of existing energy efficiency programs), a Quick-Start Plan will clearly offer value in building the market for energy efficiency and delivering immediate savings. Taking such a step, to build a data driven set of plans and goals, is similar to the actions New Jersey took in implementing its 2018 Clean Energy Act. There, the Board took an additional year to conduct deep stakeholder engagement, address policy questions of governance, cost recovery, and program administration, and then make decisions based on those findings. The result has been broader stakeholder buy-in, higher quality utility plans, and a set of cogent regulations that are well positioned to support an energy efficiency structure designed to meet local needs.[6]

3. Avoid unnecessary budget constraints on the utility's ability to meet the goal (Section 3.05)

Section 3.05 of the Proposed Regulation states that "the Energy Bureau shall establish by order the total amount of funding to be expanded for EE programs, including the program implementation and administration; associated EM&V activities; and other studies necessary for the proper functioning of the terms of this regulation." Budget oversight is an important part of the Bureau's role. However, to avoid constraining the flexibility needed to meet Puerto Rico's ambitious goals, we recommend allowing PREPA to propose a set of programs designed to meet their goals, within the cost-effectiveness framework chosen, and only constraining budget as a part of the review of that portfolio (instead of as an additional up-front constraint). Cost-effectiveness tests and evaluations are meant to ensure that program benefits outweigh costs and should avoid the need for additional prescriptive cost requirements. ACEEE research has found that states with cost caps have found themselves restrained and unable to access those cost-effective efficiency opportunities beyond the cost ceiling, and as a result have had to lower or miss their energy savings targets.[7]

We recommend that the Energy Bureau set clear, enforceable goals for PREPA, develop locally relevant cost-effectiveness rules and standards, and then allow PREPA to propose the optimal level of funding necessary to meet the Energy Bureau's goals and standards. Then, based on the Bureau's review and oversight it can set and approve appropriate budgets based on what is needed to meet those goals.

4. Address utility business model reform comprehensively to ensure energy efficiency is on an equal playing field with other resources (Section 3.02)

Energy efficiency policies in leading states align utility business models with energy efficiency by approving a decoupling mechanism, as well as performance incentives that reward utilities for reaching specified program goals. Together with direct cost recovery, these mechanisms are sometimes described as the "three-legged stool" of utility energy efficiency. Section 3.05 C addresses

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[6] New Jersey Board of Public Utilities. *8D – Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs*. June 10, 2020.
[7] https://www.aceee.org/research-report/u1908

direct cost recovery, and section 3.02.C6 addresses performance incentives. However, it is not clear that the regulation considers lost revenue recovery. ACEEE recommends addressing lost revenue recovery; through revenue decoupling if feasible, and if not, through performance incentives designed to address lost revenues.

In traditional cost of service regulation, utilities have an incentive to increase sales in the short term, because those increased sales will increase short-term revenues.[8] Generally, utilities recover some of their fixed costs through volumetric charges. So, when sales fall, utilities may not recover all their fixed costs. When sales increase, utilities may collect more than their authorized fixed costs and return, creating windfall profits from customer bills. This "throughput incentive" creates a bias toward higher sales and against what is typically the cleanest, cheapest resource option: energy efficiency. Notably, these underlying economics are present with or without an EERS mandate to deliver cost-effective energy efficiency; the disincentive is not affected by the presence of such a requirement. Although publicly-owned utilities are not beholden to shareholders, they still face disincentives for energy efficiency given the need to meet revenue targets for bondholders and maintain financial stability.

Decoupling is an approach that identifies an amount of authorized revenue to be collected and periodically provides rate adjustments to respond to utility sales being above or below the forecasted levels necessary to produce that revenue. The target revenue is sometimes allowed to increase or decrease between rate cases on the basis of an annual review of costs, a fixed inflator, or on the basis of the number of customers served (this is called "revenue-per-customer decoupling"). Decoupling allows utilities to recover allowed costs in volumetric prices independent of sales volumes. As of February 2020, 26 states (64 utilities) had adopted gas decoupling and 18 states (46 utilities) had adopted electric decoupling.[9] Los Angeles Department of Water and Power and Glendale Water and Power are two examples of publicly owned utilities that have adopted decoupling mechanisms.[10]

Decoupling policies are associated with higher energy efficiency investment and savings.
Figure 1 shows that states with decoupling achieved higher energy efficiency savings levels than states without decoupling. Specifically, states with decoupling achieved on average about triple the average energy savings levels than states without decoupling.[11]

Decoupling is the best practice approach to address the utility disincentive to pursue energy efficiency. However, if decoupling is not feasible given Puerto Rico's current ratemaking regime, we recommend scaling performance incentives to address the lost sales revenue problem, by providing sufficient financial compensation to the utility to overcome the inherent throughput disincentive presented by customer energy efficiency (in addition to addressing only the opportunity cost of energy efficiency programs; their primary function).

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[8] The rare exception would be if utilities could not serve increased usage with existing facilities, and if operating and fuel costs were higher than retail rates.
[9] NRDC, "Gas and Electric Decoupling", https://www.nrdc.org/resources/gas-and-electric-decoupling
[10] NRDC, 2018. Powering Forward: Publicly Owned Utilities are Critical to California's Energy Efficiency Progress. https://www.nrdc.org/sites/default/files/powering-forward-california-pou-report.pdf
[11] Data from Berg, W. et al. *The 2018 State Energy Efficiency Scorecard.* https://www.aceee.org/research-report/u1808

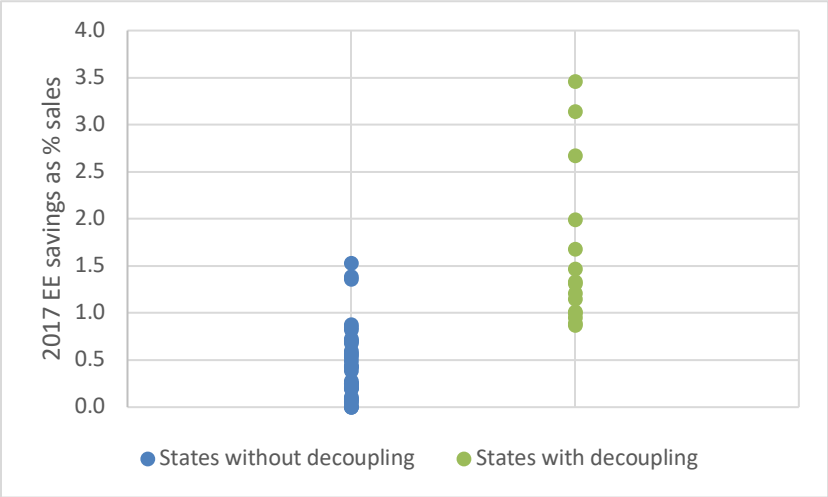

Figure 1. Electricity savings in states with and without decoupling.

This approach is one that some states take when initially ramping up programs, choosing to later restructure incentives and add a decoupling policy once program administrators demonstrate success. Xcel Energy Minnesota is consistently a high performer for energy efficiency programs, ranking 10th of 51 in the *2017 ACEEE Utility Scorecard.* In 2013, when Xcel had shared benefit performance incentives but no decoupling, ACEEE's case study of Xcel's performance found strong management engagement in energy efficiency, including monthly tracking on performance toward savings goals and deep involvement in energy efficiency policy. Since then, the Minnesota PUC has adopted decoupling for Xcel, and efficiency performance has continued to improve in every program year since. Eversource Connecticut, then Northeast Utilities, took a similar pathway, starting with performance-based incentives, and then adopting decoupling some years later like its sister utility in the state, United Illuminating.[12]

5. Ensure the stakeholder engagement process has the resources, data, and structure needed for success (Section 3.07)

ACEEE commends the Energy Bureau on the inclusion of a stakeholder engagement process, which is necessary to build stronger energy efficiency portfolios that reflect the needs of different customer groups, leverage the knowledge of business and service providers, and align program development and monitoring with public policy. Going forward, the Energy Bureau should consider hosting the stakeholder working group instead of PREPA. In our experience, seating EE collaboratives under the purview of regulators tend to be more successful than with the utilities; in general regulator-driven collaboratives correlate with higher energy savings than utility-driven collaboratives. We also recommend that the Energy Bureau more clearly define the scope and charter of the stakeholder engagement process, including roles and responsibilities, while also entrusting the stakeholder group with real decision-making authority. The stakeholder working group should define a clear objective, then track and report progress toward that goal. That shared purpose should be reflected in its

[12] York, D, M. Kushler, S. Hayes, S. Sienkowski, C. Bell, and S. Kihm,, 2013. *Making the Business Case for Energy Efficiency: Case Studies of Supporting Utility Regulation.*

activities, membership structure, and how its recommendations are used. It is important to clearly articulate the objectives of the collaborative to ensure that the regulators, utilities, and stakeholders participating have a clear mandate for their work together. Successful collaboratives "regularly deliver quality evidence and outcomes upon which commissions can rely", such as "cost savings, decision quality, and certainty."[13]

The State and Local Energy Efficiency (SEE) Action Network, a joint effort of the US Department of Energy and US Environmental Protection Agency, defines principles for successful collaboratives in more detail, including setting clear rules of the road, transparency and inclusivity, regular evaluation of efforts, and strong facilitation, as well as a clear relationship between the group and the commission.[14] Of the top ten states in ACEEE's State Scorecard, all but one have EE collaboratives of some type.[15] Examples include Rhode Island's Energy Efficiency and Resource Management Council, the Connecticut Energy Efficiency Board, and Maryland's EmPOWER Planning Group. Lastly, establishing a robust and inclusive stakeholder engagement process in Puerto Rico will be important to understand and engage with the needs of different communities and will achieve better results than emulating conventional or default EE programs from other states.

CLARIFICATIONS:

1. Whether the default cost-effectiveness test, absent a Puerto Rico Cost test, is a Utility Cost Test or Total Resource Cost Test (Sections 4.01 and 4.02)

ACEEE commends the Bureau for laying out a set of regulations to establish a Puerto Rico Cost test. We also commend the choice to assess low-income programs for their cost-effectiveness, but not require them to pass the cost-effectiveness screening test to be included in the portfolio. However, we recommend that the Bureau clarify the two sections. Section 4.01 B states that "Before the establishment of the Puerto Rico Test, PREPA and the Energy Bureau shall assess the cost-effectiveness of EE programs according to the Utility Cost Test. However, Section 4.01 G states that "If the initial Baseline Study and Potential Study described in Section 2.04 of this Regulation are completed and the Puerto Rico Test is not yet finalized, PREPA shall begin assessing the cost-effectiveness of EE programs according to the Total Resource Cost Test ("TRC Test")."

Where a jurisdiction has not created its own Jurisdiction-Specific Test, ACEEE typically recommends the UCT, also known as the Program Administrator Cost test (PACT), due to its simplicity and the fact that it most closely mimics utility investment decisions on transmission, distribution, and generation investments. While many states primarily rely on the TRC, the way it is commonly applied suffers from several deficiencies, including its frequent neglect of many non-energy benefits and resultant asymmetry. Given the principles highlighted in Section 4.02 (F), we recommend using a Utility Cost Test as the default if the Puerto Rico Test is not finalized, both for consistency with investments during

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[13] *Energy Efficiency Collaboratives*, State and Local Energy Efficiency Action Network pg. 5, https://www4.eere.energy.gov/seeaction/system/files/documents/EECollaboratives-0925final.pdf
[14] Ibid.
[15] Berg, W. et al. 2020. *The 2020 State Energy Efficiency Scorecard*. www.aceee.org/research-report/u2011

the Quick-Start Plan and because if the Puerto Rico Test is not finalized, it is unlikely that a TRC would be applied in accordance with the principles articulated in the Proposed Regulation.

2. The definition of low income and hard-to-reach customers (Section 3.02)

We laud the Energy Bureau for specifying that PREPA's EE programs must "ensure that low-income and hard-to-reach customers are marketed and served" (Section 3.02A) and for allocating no less than 15% of the total portfolio budget to the low-income customer sector (Section 3.05A). However, there is no clear definition of either "low-income" or "hard-to-reach" customers in the proposed regulation. ACEEE recommends that the Bureau defines "low-income" customers, ideally with a definition that aligns with existing sources of funding for EE, such as the Weatherization Assistance Program (WAP) or other federal funds. In addition, programs should be designed to meet and serve all low income customers, including considering various housing types. The definition should also reduce the administrative burdens of income verification by conforming with existing forms of assistance that can automatically enroll customers. For example, customers enrolled in the Low-Income Home Energy Assistance Program can automatically be referred for WAP as well.[16] In addition, we recommend that the Bureau define "hard-to-reach" customers, which is a term that typically encompasses customers who are underserved or do not have easy access to EE programs. At present, PREPA does not currently offer any EE programs, making it important to include a definition in the rulemaking that best serves Puerto Rico's goals and targets for this sector.

We look forward to continued engagement with the Energy Bureau on these issues. ACEEE is committed to helping Puerto Rico transition to clean, reliable sources of energy, and is eager to serve as a resource as the island implements policy to achieve its climate and clean energy goals.

Sincerely,

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[16] Berg, W., and A. Drehobl. 2018. "State-Level Strategies for Tackling the Energy Burden: A Review of Policies Extending State and Ratepayer-Funded Energy Efficiency to Low-Income Households." In Proceedings of the 2018 ACEEE Summer Study on Energy Efficiency in Buildings. Washington, DC: ACEEE. aceee.org/files/proceedings/2018/index.html#/paper/eventdata/p390.