



RE: RMI Comments on Proposed Regulations for Energy Efficiency

Case No.: NEPR-MI-2021-0005

Subject: Comments Filed by Rocky Mountain Institute Related to Puerto Rico Proposed Regulations for Energy Efficiency

Date: June 28th, 2021

Submitted via email to comentarios@jrsp.pr.gov

Now comes, Rocky Mountain Institute (RMI), an independent nonprofit registered in Colorado (hereinafter, 'RMI'), respectfully submits the following comments to the Puerto Rico Energy Bureau (hereinafter, 'PREB') in regard to the proceeding on the draft energy efficiency regulations.

RMI thanks PREB for the opportunity to submit public comments and commends the regulator for taking the appropriate time and process for such an important topic. As has been well researched for decades, energy efficiency is the least-cost energy option and readily available to help support electricity systems. Furthermore, RMI's peer-reviewed research indicates that energy efficiency is not only low-cost, but also an expanding resource that becomes more available and effective as ingenuity and learned efficiency improves the practice (see 'How Big Is The Energy Efficiency Resource?' by Amory Lovins – linked below).

The input herein is based on RMI's four decades of experience with designing and implementing energy efficiency, both the practice of integrative design for single buildings and portfolios of facilities as well as support to numerous utility-scale energy efficiency programs.

RMI submits the following additional materials for reference to these comments:

1. ACEEE, The Database of State Energy Efficiency Screening Practices; <https://www.aceee.org/topic-brief/dsesp>
2. Energy Efficiency Resource Standards: A State Model; ACEEE, 2009; https://www.aceee.org/files/pdf/white-paper/eers_statemodel.pdf
3. Customer-Centric Energy Transformation, RMI, 2018 <https://rmi.org/insight/customer-centric-energy-transformation/>
4. How big is the Energy Efficiency resource?, Amory Lovins, 2018; <https://iopscience.iop.org/article/10.1088/1748-9326/aad965>
5. Factor Ten Engineering Design Principles, RMI, 2010; <https://rmi.org/insight/factor-ten-engineering-design-principles/>
6. Regulatory Solutions for Building Decarbonization, RMI, 2020; <https://rmi.org/insight/regulatory-solutions-for-building-decarbonization/>
7. Low Income Solutions in A High DER Future, RMI, 2014; <https://rmi.org/insight/low-income-solutions-in-a-high-der-future/>
8. Winners of Hyper Efficient Cooling Competition Announced, Global Cooling Prize, 2021; <https://globalcoolingprize.org/grand-winners-press-release/>



9. Integrative Design and Energy Efficiency, RMI, 2010; <https://rmi.org/insight/integrative-design-a-disruptive-source-of-expanding-returns-to-investments-in-energy-efficiency/>

RMI's primary recommendations related to this energy efficiency proceeding are as follows;

1. Learn from other jurisdictions regarding their experience with fast-moving programs to inform the Quick Start Programs, and thereby increase near-term successes and reduce customer costs.
 - a. This should be designed to begin energy efficiency programs quickly and create early momentum.
2. Allow for experimentation and market based approaches while ensuring non-standard approaches and technologies are encouraged and allowed to participate
 - a. This should include innovative program design and allowing technologies such as rooftop solar thermal for hot water and other technologies.
3. Define the stakeholder input and process for first determining the PR Cost Test (the specifics of the Cost Test itself and how stakeholders can participate).
 - a. RMI recommends using a collaborative process involving all stakeholders, with the general framework and schedule established by PREB to ensure speed, clarity, and equitable participation for all stakeholders.
4. Define low-income communities and customers specifically to ensure equitable benefit and appropriate use of funds
5. Clarify the 30% target, including the role of subcomponents and determination of any excess savings (i.e., achieving the 30% kWh reduction through energy efficiency prior to 2040, or exceeding any planned or contractual savings during an implementation year).

Context:

Act 17 of 2019 mandates major changes to the Puerto Rico electricity system and establishes PREB's responsibility to develop programs and attain the thirty percent (30%) target for energy efficiency originally introduced in Act 57 of 2014. As repeatedly proven, energy efficiency is a least cost resource that can help reduce total costs during a transition to a cleaner grid. For both distributed and grid-scale planning, energy efficiency should be the first consideration.

However, many jurisdictions systematically under-invest in energy efficiency, due to a number of misaligned incentives and a focus on building new large-scale assets instead of optimizing existing infrastructure. PREB has a powerful opportunity to unlock this market, encourage innovation and competition, and help lower costs for customers and support the Puerto Rican economy. RMI commends PREB for a thorough and responsible process thus far and offers input in service of minimizing any potential risks.



Specific details and resources are provided here on each recommendation.

1. Learn from other jurisdictions on leading examples of programs that can cause the Quick Start Programs to succeed quickly.

In RMI's experience, the primary barrier to utility-scale energy efficiency programs is a tendency by program operators and utilities to delay implementation, weaken incentives, and reduce scope throughout the life of the program. By building immediate and tangible results from the Quick Start Programs (which are a key and laudable part of the process), PREB can help build momentum and overcome resistance.

RMI recommends seeking input from other regulatory bodies and experts, including the American Council for an Energy Efficiency Economy (ACEEE), to find the best approaches tailored to the Puerto Rican market. One resource to begin with is the [Database of State Efficiency Screening Practices](#).

Other experts in Monitoring and Evaluation of efficiency savings can also be surveyed to provide input, and civil society and engineers from Puerto Rico can then tailor that to the specific grid and market conditions. Investments made in the Quick Start Programs should be designed to benefit customers and show the market how stakeholders in Puerto Rico can move with agility.

2. Allow for experimentation and market based approaches and ensure non-standard approaches and technologies will be encouraged and allowed to participate

The recommendations preceding and following this one (#1 and #3 below) support the need for process and consultation in this important topic. This will be key in getting the regulations right. However, the process should be appropriately flexible to allow market-based approaches and experimentation.

One example of this approach, through experimentation, energy efficiency practitioners in the Pacific Northwest discovered that encouraging retailers to carry energy efficiency and Energy Star products in preferred locations (such as at eye level in a hardware store) would help shift customers with limited required funding and process. More information on their approaches can be found here: <https://neea.org/our-work/programs/rpp>

Prescribing the specific incentives, measurements, and approaches will often limit this ability for innovation. Given the rapid growth of distributed energy and the high level of innovation in the energy sector in general, multiple actors should be given incentives to find and scale energy efficient solutions.



The current draft regulation (rightly) focuses on energy efficiency in the electricity sector. In a future, more distributed and advanced grid, this sector will increasingly connect to the transport system via electrified or partially electrified vehicles and more controllable loads behind the meter. In addition, the regulation should allow for programs targeting electrification of cooking or hot water heating systems using propane or other fuels in Puerto Rico. Lastly, the program should find ways for solar thermal systems to participate to reduce or avoid the need for grid or fossil energy to produce hot water, for both residences and commercial and industrial customers.

The consideration of non-wires alternatives is an important inclusion in this proceeding and other analyses, but energy efficiency should be considered not only for the benefit of reducing or avoiding grid scale transmission and distribution investments, but also to couple with renewable energy and/or storage to ensure distributed solutions are cost effective and grid-supportive.

3. Define the stakeholder input and process for determining the PR Cost Test, to emphasize a collaborative approach

RMI recommends using a collaborative process involving all relevant and interested stakeholders, with the general framework and schedule established by PREB to ensure speed and clarity. This process would first be used to define the right metrics and approach for the PR Cost Test. This important cost test will help shape energy efficiency efforts for years and gathering input and creating valuable connections between implementers can augment this important work. The collaborative process should employ three key elements;

- A. A set of dialogue interviews with key stakeholders to understand perspectives before beginning,
- B. A defined schedule and set of parallel documents iterated based on stakeholder input during the collaborative process, and
- C. Expert facilitators prepared to keep the group focused on the right topics and use the time efficiently.

The prior approach used to support a bipartisan group of Senators in defining Act 17, known as [The Public Collaborative for Puerto Rico's Energy Future](#) is one model for engagement that RMI offers as a reference. The Public Collaborative hosted jointly by the Institute for a Competitive and Sustainable Economy for Puerto Rico (ICSE-PR) and RMI and supported with expert facilitators from Reos Partners was a multi-stakeholder process to gather input, host meaningful dialogues, and engage many diverse perspectives. As RMI's experience with the Hawaii grid and regulator indicates in other related proceedings, having the regulator define the process will lead to a clear and equitable process.

4. Define low-income communities and customers specifically to ensure equitable benefit and appropriate use of funds

The draft regulation appropriately directs funds to low income customers. However, a more specific definition of this customer group, and whether efficiency program operators will be



able to focus on low income communities or only low income customers will be helpful to create clarity. The document linked above, and copied here, has further insight from RMI teams working to support electricity programs in partnership with low income community groups: <https://rmi.org/insight/low-income-solutions-in-a-high-der-future/>

5. Clarify the 30% target, including how the ‘multiple means and Contributing entities’ will each factor into meeting the 30% as well as how any excess savings will be treated.

As per Act 17, meeting the 30% savings through energy efficiency by 2040 is the primary goal of this regulation, while employing all cost effective energy efficiency and leveraging supplemental funds to keep customer costs low. However, specifically defining a baseline year from which reductions will be calculated (which can be done through the Baseline Study) and setting targets for each of the components specified in Section 2.01 will help create clarity and strengthen the target.

For example, if PREB expects PREPA / LUMA-run and facilitates programs to meet all savings *not* met through the other components / contributing entities, specifying that relationship will be key for program planning. Reconciling how utility-run programs, government building efficiency upgrades, and incentive-driven customer engagement would interact with organic energy efficiency (that achieved by changes in the broader economy and technology) will be key to ensure an effective Monitoring and Evaluation process.

This will help mitigate the risk of utility programs, advancing building codes, and requirements for Commonwealth government facilities each depending on the other to meet the target and delaying the needed action to meet the target.

Many utility programs have reached and exceeded their target savings for energy efficiency (such as meeting the 30% goal earlier than expected or experiencing a specific implementation year where the program operator exceeds their contracted amount of energy savings). This would almost certainly lead to customer benefit and a stronger and more flexible grid, so should be pursued. To plan for and encourage this outcome, defining upfront how the program goals, funding, and approaches will change (if at all) when the 30% target is attained will be valuable for program design. For example, will all cost effective energy efficiency still be sought by the program operators? Or will their programs cease or pause? Will any bonuses or new incentives emerge?

RMI offers these recommendations in support of the ongoing and important proceedings, and thanks the Puerto Rico Energy Bureau and all participants.