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

IN RE: REGULATION FOR ENERGY EFFICIENCY	CASE NO. NEPR-MI-2021-0005 SUBJECT: NOTICE OF PROPOSED REGULATION AND REQUEST FOR PUBLIC COMMENTS

INSTITUTO DE COMPETITIVIDAD Y SOSTENEABILIDAD ECONOMICA DE PUERTO RICO COMMENTS TO PROPOSED REGULATION FOR ENERGY EFFICIENCY

TO THE BUREAU:

Now comes Instituto de Competitividad y Sostenibilidad Económica de Puerto Rico (ICSE) represented by appearing counsel and respectfully alleges and prays:

1. On April 22, 2021, the Puerto Rico Energy Bureau (PREB) notified the Proposed Regulations for Energy Efficiency as a standalone regulation that supersedes the joint energy efficiency-demand response regulation.

2. ICSE fully agrees with the initial focus on Energy Efficiency and the overarching PREB statement of purpose, that energy efficiency very beneficially addresses principles of equity, quality, economic and environmental cost reduction, commencing with lower customer bills as stated in the proposed regulation:

> "Energy efficiency has a significant role to play in rebuilding a stronger energy system responsive to customers' needs, as demonstrated by the significant level of energy efficiency required in the new energy public policy. Energy efficiency not only provides a mechanism to assist individual customers to decrease their consumption of electricity, lowering their energy bills, but it also reduces the costs of the electric system. It addresses principles of quality and equity, among others, by diminishing the need for more expensive fossil fuel generation and making available mechanisms for all customers to reduce their energy consumption and concurrently, their energy bills."

3. This statement is fully in line with Article 5.2 of Act 17-2019 defining Energy Efficiency (EE); and Article 5.25 stating EE goals and how to achieve them. And it is also in line with the ICSE's prior statements and requests to the PREB that a customer-centric, and bottoms-up planning operating culture. LUMA and PREPA are also key actors to other proceedings and early regulatory success, Energy Efficiency investments, and others such as, but not limited to "IRP Optimization" through mini and microgrid distributed energy resources, or Demand Response. Energy Efficiency is recognized worldwide by an extensive body of energy policy studies and regulatory analysis as the most effective first step to sustainability and cost-effectiveness including the carbon footprint reduction now also very urgently present as part of Puerto Rico climate risk management public policy.

4. ICSE recommends the following further principles for a macro-framework for energy efficiency:

First: PREB regulation should be "soft touch" and the least intrusive to permit the existing proven market and technology solutions to be the main driving forces in EE development and implementation.

Second: PREB should avoid overinclusive or heavy-handed regulation which could end up hindering naturally occurring EE developments by both private and other public entities, particularly those with actual or possible outside funding.

Third: PREB should focus LUMA-PREPA funding through utility funds and tariffs, and other government agency coordination efforts first on:

a. Incentives and financing schemes for the poorer households that do not have access to naturally occurring financing of EE solutions.

b. EE that lowers the bills of customers that legislature and central government have not or cannot eliminate subsidies for.

c. Comparative best practices should be discovered through PREB, PREPA research, and LUMA consortium participants, who operate in and have knowledge of multiple markets, subject to ongoing proceedings where other government agencies and the public who receive EE solutions and benefits from them can offer cost-benefit information. "Low hanging fruit" existing or high-potential EE programs with public and private funding that can be promoted or implemented immediately without energy tariff increases should be identified, encouraged, promoted and measured at residential, municipal, commercial-industrial and public corporation or government agency levels.

5. Article 2 of the Proposed Regulation states as follows:

"Section 2.01 Targets
A) ....
B) The target may be achieved through multiple means and Contributing Entities, including:
1) PREPA-run or PREPA-facilitated energy efficiency programs;
2) Energy efficiency programs and actions in governmental buildings, facilitated by the PEPP;
3) Savings resulting from the adoption of new building energy codes implemented after 2019, or increased compliance with building energy codes;
4) Savings resulting from incremental federal or Commonwealth appliance energy efficiency standards and laws implemented after 2019;
5) Energy efficiency resulting from actions funded by federal or Commonwealth governmental funds, such as low-income weatherization programs, Community Development Block Grants, disaster recovery or hazard mitigation funds, or other such programs; and
6) ..."

At Article 3, PREB's Proposed Regulation states:

"B) PREPA shall pursue all cost-effective efficiency savings on behalf of all customers over time, (as defined under the cost-effectiveness test established in ARTICLE 4 of this regulation), including diverse technologies and various services provided to engage with all customer types and classes, and sufficient to achieve at least the energy efficiency targets established in ARTICLE 2 of this regulation.

C) PREPA shall develop EE programs that accord with the most recent approved Integrated Resource Plan ("IRP") and Energy Bureau orders.

D) Regarding the provision of these programs, PREPA shall, among other things:

1) Increase the efficiency of buildings, appliances, lighting, equipment, products, industrial processes, and other end uses;

2) Encourage energy conservation and reduce absolute energy use through controls, system sizing, optimization of operation and maintenance practices in buildings and manufacturing plants and customer actions;

3) Prioritize lost opportunity markets. Lost opportunities occur when efficiency measures are not installed when it is most cost-effective to do so;

4) Pursue Market Transformation strategies;

5) Provide all customers with the opportunity to participate in services and initiatives;

6) Strive to provide comprehensive services to all customers including customer education, audits, rebates, and financing;

7) Work with energy efficiency service providers to provide contractor training and other education and tools as necessary to ensure the energy efficiency measures deliver the maximum value;

8) Pursue innovative approaches to the cost-effective acquisition of energy efficiency and demand response;

9) Encourage compliance with Puerto Rico's building energy code, and contribute to increasing the stringency of that code while maintaining its cost-effectiveness;

10)Balance near-term and long-term resource acquisition to maximize total cost-effective energy efficiency and demand response resource acquisition over time; and

11)Provide information and education that will empower customers to manage their energy use and energy bills

12)Seek stakeholder input on the most cost-effective programs for implementation.

E) As PREPA's programs begin, mature, and develop over time, the Energy Bureau may choose to prioritize certain of these objectives."

Article 3.06 on financing states:

"A) PREPA shall seek to effectively use external funding sources to provide customers with the needed capital to effectively overcome barriers to implement EE projects.

B) PREPA shall report on its efforts and performance in developing and implementing financing programs under this section in its Annual Reports.
C) PREPA shall work with the Public Energy Policy Program to pursue grants, low-cost loans, loan guarantees, or other financing support for EE from Federal agencies (such as the U.S. Department of Agriculture, U.S. Department of Energy, and the U.S. Department of Housing and Urban Development) as well as from other sources, in the quantities required to support the achievement of the EE targets established in Article 2 of this Regulation and the EE plans approved under Section 3.02 of this Regulation.

1) Grant funds that may be acquired under this provision shall be used in part to establish a revolving loan fund to support EE programs. PEPP will administer the revolving loan fund for governmental entities. PREPA shall administer, or contract with an expert firm to administer, any EE program that utilizes the revolving loan fund to provide non-Governmental customers with access to capital for approved EE measures. PREPA shall collect repayment from customers participating in such a program and remitting to the PEPP the funds collected to replenish the loan fund. 2) Grant funds may also fund a loan loss reserve fund to increase access to capital for financing programs or lowering the cost of capital.

3) PREPA and PEPP shall develop a process to facilitate funding from the revolving loan fund to be used by PREPA for customer energy efficiency, and for repayment via PREPA to the revolving loan fund. D) PREPA shall offer customers financing to support the installation of EE measures.

1) These programs shall support measures cost-effective for the customer after accounting for the cost of capital and any offered incentives, such that total participating customer bills (including the cost of energy and the cost of the financing) are lower than they would have been without the EE implementation.

2) This financing shall include options with no required upfront payment.

3) PREPA may contract with one or more third parties to develop financing-based program proposal(s) and to administer the program(s).

4) Each financing program design that PREPA develops and implements shall include:

a) guidelines for financing of measures installed under the program, including, but not limited to, limits on both individual loan amounts and the duration of the loans;

b) criteria and standards for identifying and approving EE measures and procedures for independent certification that EE savings estimates exceed payments in both the near and long terms;

c) how the program will address non-payment and disconnection;

d) qualifications of vendors that will market or install measures, as well as a methodology for ensuring ongoing compliance with such qualifications;

e) sample contracts and agreements necessary to implement the measures and program;

f) the types of data and information that PREPA and vendors participating in the program shall collect to prepare the Annual Reports required under Section 5.01 of this Regulation; and,

g) a budget for costs related to all start-up and administrative costs and the costs for program evaluation.

5) PREPA shall evaluate, and offer, if possible, tariff-based financing options assigned to the meter (rather than to the customer), with site-specific cost recovery so the repayment would be provided by the benefitting customer even if the building has different occupants or owners (such as "Pay As You Save" TM approaches) or the occupant or owners change. a) PREPA must particularly seek to develop such a program offering for residential and small business customers, but need not be limited to these customer types.

6) PREPA shall evaluate, and offer if possible, financing options that offer commercial and industrial customers the ability to pay over-time in equivalent proportion to their realized energy savings."

6. The aforementioned Articles, although substantively correct about the various existing and possible avenues for Energy Efficiency implementation, seem exclusively centered around PREPA and LUMA under the preconception that a centralized top-down system is the right solution rather than a decentralized distributed energy system akin to the Puerto Rico Act 17-2019 model. In addition, it supposes that PREPA-LUMA are ready to plan and coordinate with myriad agencies such a top-down heavy-handed regulation when it is obvious they are facing colossal management integration problems, and attendant regulatory agenda where LUMA/PREPA EE Performance metrics are yet to be considered.

7. ICSE shares the following analysis in support of Section 2.0 comments that reflect energy markets, technologies, evolved customer needs, and capabilities realities:

Changing Market for Energy Efficiency

We now face a shift in how EE is used and its cost-effectiveness (CE). With greater use of renewable energy, including solar and wind power, the marginal costs of electrical energy are declining globally quite rapidly, although not yet at the same pace utility scale, nor at the same level for different customer classes in Puerto Rico. The classic CE valuation approaches, the generally used CE tests (Total Resource Cost and Program Administrator Cost) have relied on benefits from avoided or marginal energy costs.

Now the use of distributed energy resources (DERs) can be heavily impacted by EE, particularly to reduce the costs of solar (photovoltaic), storage batteries, smart inverters, demand response, and electric vehicle (EV) charging. This suggests that agile early-on targeted use of EE is a critical tool to increase the use of DERs and its overall CE, largely to reduce the sizes of DERs that are needed, which translates directly to lower capital cost or "first cost."

Informed Customer Focus on Connected Load Level or "Fuse-Level"

If consumers can choose their level of grid services, the reliable load level they want to afford, much will be clarified. Grid services in capacity terms (kW) are very capital intensive over relatively long durations. Changes in electricity costs will stem primarily from a capacity-focus (capital intensive) and be less about energy (variable costs), which should be declining. Consumers can define what level of service, basically a kW fuse level, they want and can then arrange the suite of DERs based on this calculation. Outage costs are well-known in principle but vary with each customer —especially among commercial and industrial customers. A simple direction for optimal customer service is to reduce outage costs by customers choosing their own fuse levels. The costs to provide

grid services, as compared to DERs, then becomes obvious: is it cheaper for the customer to pay higher grid costs or to purchase DERs with reduced consumption due to EE?

Customers can know the impacts of power interruption, which is reduced by EE; what they want to pay for the grid services; and what DER packages are better tailored to their needs. Customers can then use a suite of adaptive strategies to choose non-discretionary loads from discretionary loads, to be informed and to choose.[1] Grid energy delivery and DERs can be examined along with other cost considerations in budgeting.

Many customers who choose their grid service level will be well-informed. This approach to customer choice naturally signals the level of new grid services that are needed merely by adding up customer demands, though DERs seem ultimately to shrink grid use in response to lower-cost options particularly through EE.[2] No doubt, informed third-party services will come forth to advise customers and package customer fuse level subscription with "best practice" DER packages, and EE packages.

8. Particularly, the financing of energy efficiency is an area where the market is moving with more speed and efficiency than PREPA. The articles applicable to PREPA should not be on an exclusive basis and should openly permit and promote private sector initiatives. After all, it is what is already happening in the rooftop photovoltaic systems market with or without battery support.

9. Accessibility to capital is of the upmost importance if the EE Programs are expected to include low-income classes of customers. However, this does not mean that absolute access should be granted since this may imply large risks to PREPA's capacity

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[1] S. Biak, et al, A Hybrid Approach to Estimating the Economic Value of Enhanced Power System Resilience, DOE-LBNL, February, 2021.

[2] This was implied by a set of practitioners more than three decades ago. E. Woychik, *Regulatory View of Capacity Valuation in California,* Energy Journal, Volume 9, 1988

to satisfy its credit against customers. Therefore, customers should receive a level of financing tailored to their creditworthiness. The programs approved by PREB should then be subject to prudent and recommended practices of the financing industry. Limits on individual loan amounts should be established based on these same standards. Nonetheless, this does not mean that some funds cannot be destined specifically towards the inclusion of high-risk customer-debtors. Hence, by compartmentalizing funds to be offered to different classes of customers, EE Program participation of low-income customers can be achieved.

10. Section 3.06 (D)(4)(c) establishes that the "program will address non-payment and disconnection." On one hand, PREPA must possess the necessary faculties to achieve compliance with loan obligations. On the other hand, given the importance of electric services, customers should not be subject to disconnection in the event of default. Consequently, the means to achieve compliance with loan terms should be less onerous to customer-debtors. This could be achieved through the collateralization of other customer-debtors' assets. In this context, if the event of default should arise, PREPA would satisfy its credit in a way that would not result in the loss of such a fundamental service as energy. Due to the diminution of risks in secured credit transactions, interest rates become more favorable to customer-debtors, i.e., the customer-debtor is incentivized to more effectively to participate in EE programs. Our recommendation is that financing for EE Programs should include secured credit transactions when the loan risks are higher, be it because of the individual customer's credit or the loan amount.

11. Section 3.06 (D)(5) states:

> "PREPA shall evaluate, and offer, if possible, tariff-based financing options assigned to the meter (rather than to the customer), with site-specific cost recovery

so the repayment would be provided by the benefitting customer even if the building has different occupants or owners (such as Pay As You Save™ approaches) or the occupant or owners change."

Because of our previous observations regarding disconnection, we recommend that tariff-based financing assigned to the meter is not in the best interest of customer protection. It would be far more beneficial to PREPA's clients that loan transactions be separated from transactions related to energy services. Even if multiplicity of transactions may cause additional costs, billing confusion should not arise, and clients will have the security that default shall not result in the loss of service. This way, PREPA will also keep a clearer record on income due to energy services and on income arising because of the financing of EE Programs.

12. Section 3.06 in general does not state the benefits for those customers that participate in EE Programs without the need of financing. The regulation should cover this class of customers that are not a hinderance to the capital that could otherwise be offered to customers that need it the most, i.e., the least probable to participate. To stimulate more participation in EE Programs without financing, benefits offered to customers should reflect it. This means that customers will be incentivized to seek finance from private institutions instead of the EE Budget contemplated in Section 3.05. Then, the EE Budget could be used to offer financing to the most economically vulnerable classes of customers.

13. PREPA is not in the business of micro-finance, nor does it have a history of prudent financial management. Therefore, it would be in the interest of PREPA, its customers, and the EE engineer-procure-finance-maintain community, similar to the DERs technology implementation community, that the contracting and financing be

administered by third parties with the appropriate expertise in the respective energy efficiency finance business at residential, commercial, municipal and industrial scales. This, of course, can occur either by PREPA contracting the Financing Third Party or by being regulated by the PREB through competitive procurement because new technologies and financing schemes are deployed. Given the societal benefit EE Program inclusion means, compensation of the Financing Third Party should be based on performance in facilitating capital to customers and collection.

14. ICSE exhorts PREB to develop EE Programs in conjunction with other administrative and public entities. Other bodies of government can advance their own goals under the guidance of PREB so that EE is concurrently advanced. For example, the statutory goal of illuminating the streets of Puerto Rico with LED lights could be better achieved not by PREB doing so but by delegating this responsibility to, say, the Department of Transportation and Public Works, which should have the appropriate equipment and machinery to achieve this. Another example of possible practices that may further energy efficiency is establishing a regulation that all future public buildings must possess equipment that is cost-effective in terms of energy. In general, PREB should identify in which sectors energy efficiency can be instituted with the collaboration of more well-suited entities to do so and then delegate responsibilities, respectively. A grand design government model where every action is primarily or entirely in PREPA's and PREB's hands, can limit multiple private naturally occurring and government initiatives, some of which have legal and regulatory powers that directly or indirectly promote energy efficiency such as:

a) Department of Housing energy efficiency standards for new public housing

b) Health Department standards for hospitals and health care facilities

c) Consumer Affairs Department standards for consumer products

d) Education Department standards for schools

e) Planning Board and OGPE new construction standards

15. Lastly, ICSE wants to bring to PREB's attention on some inaccuracies identified on Section 2.04 of the Proposed Regulation. Subsection B of this Section reads "(C)(2)-(6) of Section 2.01" while Subsection E mentions "(C)(3)-(4) in this section." We request clarification to which Subsections the Proposed Regulation refers to since (C)(2)-(6) of Section 2.01 and (C)(3)-(4) exist.

16. ICSE understands that Energy Efficiency, Demand Response Programs, and Distributed Energy Developments should be open-ended and limited by regulation as little as necessary.

17. There is no doubt that EE has been and continues to be a low-cost, easy-implementation strategy to reduce costs to consumers and to forego electric system capital expenses. In addition, EE is the most quick and effective tactic to mitigate carbon footprint in the short term. However, it should be noted, that depending on the revenue structure of the grid owner/operator, a reduction in consumed energy can impact financial health and so the tariff structure should be property aligned to avoid perverse incentives to hinder EE development and increase energy consumption.

WHEREFORE, it is respectfully requested to modify the Proposed Regulation to include our recommendations regarding EE financing and decentralization of planning and implementation; and to keep in mind the adverse socioeconomic impacts overreaching regulation inflicts to naturally occurring developments.

CERTIFY: I hereby certify that, on this same date, we have filed this motion notified by electronic mail to: astrid.rodriguez@prepa.com, jorge.ruiz@prepa.com, margarita.mercado@us.dlapiper.com, carlos.reyes@ecoelectrica.com, Legal@lumamc.com, wayne.stensby@lumamc.com, mario.hurtado@lumamc.com, Ashley.engbloom@lumamc.com, Elias.sostre@aes.com; jesus.bolinaga@aes.com; cfl@mcvpr.com; ivc@mcvpr.com; notices@sonnedix.com; leslie@sonnedix.com; victorluisgonzalez@yahoo.com; tax@sunnova.com; jcmendez@reichardescalera.com; r.martinez@fonroche.fr; gonzalo.rodriguez@gestampren.com; kevin.devlin@patternenergy.com; fortiz@reichardescalera.com; jeff.lewis@terraform.com; mperez@prrenewables.com; cotero@landfillpr.com; geoff.biddick@radiangen.com; hjcruz@urielrenewables.com; carlos.reyes@ecoelectrica.com; brent.miller@longroadenergy.com; tracy.deguise@everstreamcapital.com; h.bobea@fonrochepr.com; ramonluisnieves@rlnlegal.com; hrivera@jrsp.pr.gov; info@sesapr.org; yan.oquendo@ddec.pr.gov; acarbo@edf.org; pjcleanenergy@gmail.com; nicolas@dexgrid.io; javrua@gmail.com; JavRua@sesapr.org; lmartinez@nrdc.org; thomas.quasius@aptim.com; rtorbert@rmi.org; lionel.orama@upr.edu; noloseus@gmail.com; aconer.pr@gmail.com; dortiz@elpuente.us; wilma.lopez@ddec.pr.gov; gary.holtzer@weil.com; ingridmvila@gmail.com; rstgo2@gmai1.com; agc@agcpr.com; presidente@ciapr.org; cpsmith@unidosporutuado.org; jmenen6666@gmai1.com; cpares@maximosolar.com; CESA@cleanegroup.org; acasepr@gmail.com; secretario@ddec.pr.gov; julia.mignuccisanchez@gmail.com; professoraviles@gmail.com; gmch24@gmail.com; ausubopr88@gmail.com; carlos.rodriguez@valairlines.com; amaneser2020@gmail.com;

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RESPECTFULLY SUBMITTED this 28th, day of June, 2021, in San Juan, Puerto Rico.

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