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Project No. 56517 - Energy Efficiency Implementation Plans

Thank you for the opportunity to provide comments on the Public Utility Commission of Texas (PUCT) Staff's April 23, 2024 memo regarding higher performance standards for energy efficiency programs. These comments are provided by Sealed, a climate tech company on a mission to stop home energy waste. Sealed has over 10 years of experience with measured savings programs, which provide rebates based on actual, quantified savings by looking at energy usage before and after project installation. Texas can help improve reliability and lower consumer costs by making energy efficiency a real, measured resource that grid operators can rely on. And by valuing savings based on time and location, Texas can create an incentive structure to turn energy efficiency measures into essential components of Virtual Power Plants (VPPs) that lower peak demand and improve grid flexibility.

Responses to PUCT Staff Questions

1. *Should certain hours of the day be considered more valuable within the design of standard offer or targeted market-transformation programs offered by utilities?¹ Please discuss your rationale in detail.*

Yes, energy efficiency and demand flexibility programs should target reductions during peak hours and high-demand days, as these periods present the greatest value for energy savings and are crucial for maintaining and improving grid reliability. The price of energy varies significantly during

the day and throughout the year. Electricity on a hot, 100 degree summer afternoon is typically more expensive than the same amount of electricity used in the early hours of a cool spring morning. Directing load optimization efforts and efficiency improvements to these high-value times will not only lower costs for all customers but also offer direct advantages to program participants.

Residential energy efficiency is predictable, reliable, and comparatively inexpensive, and with proper program design it can serve as the “base load” for VPPs. To date, energy efficiency has often been left out of the VPP and grid reliability discussions. But that’s only because energy efficiency has historically relied on energy models or deemed savings approaches, even though grid operators need measured results on both the supply and demand sides of the energy coin. To be valued as a true grid resource, energy efficiency must therefore be measured and rebate programs should be designed whenever possible to be ‘pay for performance.’

In addition to creating an incentive structure such that households are awarded for efficiency reductions at the most valuable times of the day and year, we also encourage the PUCT to value geographic location. Targeting incentives for demand-side investments in areas that are transmission or distribution constrained or expecting significant load growth can improve reliability and help reduce the overall costs associated with building new infrastructure.

2. *What metrics should be used to track the success of low-income and hard-to-reach programs under 16 Texas Administrative Code (TAC) §25.181?*

It will be important to track the results of grid optimization and energy efficiency programs for all customer classes. But low-income and hard-to-reach households are deserving of particular focus and attention. At a minimum, we suggest specific breakdowns of: quantified bill savings; participation and enrollment by program; reduction in overall energy burden; customer satisfaction; and improvements in health and comfort for consumers in these categories. Ensuring that energy efficiency programs drive high-quality home retrofit projects is crucial for low-income families in particular. When project quality suffers, low-income communities typically suffer the most. The work must be done the right way the first time to avoid improperly installed equipment that can result in costly repairs. In addition, high-quality projects can ensure that households get the most health, safety, and comfort benefits of home energy efficiency improvements. Measured savings programs, by definition, transfer project performance risk from households and taxpayers to aggregators and low-income and hard-to-reach households will greatly benefit from this transfer of risk. In addition, under the measured approach, utility programs only pay for savings that are quantifiable and can be proved, which creates an incentive structure that rewards high-quality work.

3. *Avoided cost of capacity and energy:*
 - a. *Existing 16 TAC §25.181(d)(2) calculates the avoided cost of capacity. Should this calculation be revised in a future energy efficiency rulemaking? If so, how? Please discuss your rationale in detail.*

The primary challenge with the current avoided cost of capacity is that it is an annual average cost that is disconnected from the actual value of electricity at particular times of the day and locations. The Texas resource mix continues to evolve to a greater variety of generation technologies, load growth has accelerated, and distributed resources like efficiency and demand response are important strategies to compensate for increased variability in the generation mix and should be valued like supply resources. The current avoided cost of capacity reflects an historic "peak" planning assumption despite the realities of the current system and the potentially great opportunities for efficiency and demand response to support reliability and affordability in the long term if valued in a symmetrical manner to supply resources. We thus recommend that updates to the avoided capacity value should be calculated to reflect the value of resources on the system at any time of the day.

b. Existing 16 TAC §25.181(d)(3) calculates the avoided cost of energy. Should this calculation be revised in a future energy efficiency rulemaking? If so, how? Please discuss your rationale in detail.

We support ERCOT and the PUCT's latest update to the avoided cost of energy as it recognizes that energy efficiency and grid optimization programs can help improve the resiliency and reliability of the overall electricity system. But like with the avoided cost of capacity, the current cost of energy calculation does not take into account the temporal variation in prices during the day and year. Texas should incentivize actions that have the most value to the grid, and so we recommend that time (and location) be incorporated into the cost of energy in the next energy efficiency rulemaking.

4. N/A

5. Existing 16 TAC §25.181 addresses energy savings and demand reduction goals. Should these existing goals be revised in a future energy efficiency rulemaking? If so, how? Please discuss your rationale in detail.

The existing energy efficiency and demand reduction goals should be increased, given load growth in Texas, technological improvements that allow for real-time measurement and response, the benefits that the demand-side can bring to resiliency and grid reliability, and the fact that the current standards haven't been updated since 2012. The Southwest Partnership for Energy Efficiency as a Resource (SPEER) calculates that the current goal for Texas IOUs is .21% of statewide electricity sales and could be raised to 1% of sales and still be below the national average.² We recommend a two stage process where, first, the current energy efficiency savings goals are at least doubled, followed by the opening of a process to consider adopting a total system benefit approach (as described by Recurve in its comments) for evaluating demand-side programs. Ultimately, Texas should move to a framework where all cost-effective demand resources are procured through a pay-for-performance structure that includes time and location.

6. In the upcoming rulemaking to implement SB 1699, what other issues should be considered? Should the existing energy efficiency rules be restructured? Please discuss your rationale in detail.

SB 1699 states that “the commission by rule shall establish goals in the ERCOT power region to reduce the average residential load.” As part of this process, we encourage the PUCT to implement a pilot measured-savings program so

² “SPEER Review of Texas IOU Energy Efficiency Programs 2005-2022”, https://eepartnership.org/wp-content/uploads/2022/09/IOU-Program-Review-SPEER-Report-2022_FINAL.pdf p. 5.

that the state and stakeholders can gather key data to inform the overall rulemaking on the best ways to implement SB 1699. Measured savings programs are ready-to-go and can be implemented quickly. The focus of such a pilot should be grid optimization and flexibility and not simply focused on 'old school' demand response.

7. What activities should the Energy Efficiency division prioritize over the next twelve months?

See the Executive Summary below for our recommendations.

Executive Summary

David Kolata, VP of Policy

We have five main recommendations;

- (1) Establish measured savings and pay-for-performance approaches as the default energy efficiency residential program designs. Modeled and deemed programs have a role to play, but it's important to move in the direction of measured savings where practicable.
- (2) Update the current avoided costs of capacity and energy to include time and location.
- (3) Integrate energy efficiency and demand response programs together so that the focus is on grid optimization and flexibility rather than distinct program silos.

(4) Increase the existing energy efficiency savings targets in light of the current Texas landscape and move over time to a system that procures all cost-effective demand resources.

(5) As soon as possible, create a residential measured savings pilot that complements existing programs to attain important data on how best to accelerate the development of flexible, demand-side resources in Texas.

