



SIERRA CLUB

LONE STAR CHAPTER

The Honorable Chair Todd Hunter
The Honorable Vice-Chair Ana Hernandez
Members, Committee on State Affairs

July 31st, 2024

Written Comments from the Invited Testimony of Lone Star Chapter of the Sierra Club; Submitted by Cyrus Reed, Legislative and Conservation Director, cyrus.reed@sierraclub.org, 512-888-9411

The Lone Star Chapter of the Sierra Club appreciates the opportunity to offer brief written comments as part of our invited testimony, centered on the implementation of HB 1500 (PUCT Sunset bill), SB 1699 and SB 2627, along with the associated constitutional amendment (Prop 7) to implement the Texas Energy Fund. We also want to acknowledge the addition of a new charge named by the Committee and Speaker recently in the wake of the horrifying events that occurred recently in the larger Houston and other regions in East Texas as a result of Hurricane Beryl. Indeed, for the families who lost loved ones - reportedly 36 in all - and for the many who were devastated for days and even weeks without electricity, it will not be forgotten. We worry too about the \$800 million placed on the back of Houston-area ratepayers from the investment in gas recovery generators that were not useful in the Beryl system and the reported \$1.6 to \$1.8 billion that could be placed on ratepayer backs due to the cost recovery. We hope the legislature looks carefully at how these costs are recovered and who pays for them. Like all Texans, we mourn for lost lives, health impacts and economic upheaval, but we must be clear that this is not the first time that Texans have suffered from the inability of our electric grid at both the transmission and distribution system to work properly during climate and weather extremes.

Recent ice and hail storms, hurricanes, the “derecho” winds, floods and even fires have devastated different areas of the state, from Central Texas to the Gulf to West Texas. Most of these have impacted the electric distribution system. Focusing narrowly on only tropical storms and not on the many threats from extreme weather that is only becoming

more frequent with our changing climate would be a mistake. All areas of the state face these threats. While the Sierra Club appreciates and has supported many recent legislative efforts to improve our electric grid such as required weatherization of our power plants and transmission systems, the recent hurricanes and other climate events have made clear that relying on our private and public transmission and distribution providers without clear legislative mandates and state oversight is a mistake, and Texans will continue to suffer. Both private utilities like Centerpoint Energy as well as public utilities as well as our political leaders collectively bear some of the responsibility for these failures to prepare and anticipate deadly events. Before turning to some observations of the failures during the recent storm, we wanted to address the three new laws that the PUCT is implementing.

Implementation of HB 1500: PUCT is making progress, but more remains to be done to complete the job

Trying to summarize HB 1500 which includes nearly 50 pages of statutory changes large and small is difficult but the PUCT has made major progress implementing many of the requirements of HB 1500. Sierra Club was supportive of HB 1500 and we remain supportive of the PUCT's efforts to implement the law. A good and updated status of the PUCT's efforts on HB 1500 and other bills can be found at a document available on their website entitled 88th Legislative Session PUCT status (available here https://www.puc.texas.gov/agency/about/government-relations/content/pdf/88th_legislative_session_puct_status.pdf). While this document does not include all of their efforts, it includes many of the most important.

For the purposes of our invited testimony we will focus on a few of the most important provisions. We would like to recognized that the PUCT has implemented some important transparency improvements as a result of the sunset management and statutory directions, including allowing for public input on every non-contested item at open meetings, improvements made to the website to make it easier for the public to engage, the addition of a new "Power to Save" website on energy efficiency programs, and the additional staff in both public outreach and energy efficiency that the PUCT has recently implemented.

Section 9. Establish a reasonable allowance for costs incurred by transmission-owning utilities to interconnect generation resources to the ERCOT transmission system.

One of the most controversial provisions contained in HB 1500 was a new change that required the PUCT to consider a reasonable allowance for interconnections of

generation resources to the transmission system. Below that amount all loads pay for interconnection of generation, but above that amount it would be the responsibility of the generator. The PUCT did an outstanding job opening a project, taking comments, holding workshops and coming up with a reasonable allowance that will allow generation to continue to thrive in Texas but establish some reasonable limits that can be revisited as new data becomes available. Under the rules, the PUCT will gather information from utilities on regional and overall costs and revisit the allowance once every five years providing an interactive and iterative process. The new rules can be found in Project 55566. We support this rule as a fair compromise given the legislative direction.

Section 22. Requirement for ERCOT to add a stand-alone reliability product known as DRRS

After initially proposing a new ancillary product known as the Dispatchable Reliability Reserve Service (DRRS) as part of an existing service (non-spin), input from many stakeholders, Chair Hunter and Senator Schwertner among others convinced ERCOT and the PUCT to instead propose a standalone product as required. While doing so means ERCOT and the PUCT will not meet the statutory deadline, it will assure that the service is more useful to the grid in assuring reliability. ERCOT has now proposed a new NPRR (NPRR 1235) to implement the DRRS and the proposed NPRR is now being discussed through the normal committee process. Several stakeholders including the Sierra Club, the Texas Solar Power Association and some battery storage companies have filed comments. In particular, the current ERCOT proposal would create a new four-hour service that would only be available to traditional generation facilities even though we believe the clear legislative intent was to include batteries capable of providing four-hours of service at their maximum capacity. This proposal was indeed discussed on the Senate floor to establish legislative intent. We look forward to working through the ERCOT process and the PUCT adoption of a stand-alone DRRS that includes all technology capable of meeting the statutory requirements. The new ancillary product would only be implemented around the time of co-optimization, meaning it likely will not be available until after the next legislative session, most likely for 2026.

Reliability Standard. While technically a requirement under SB 3 passed by the Legislature in 2021, HB 1500 authorizes and clarifies that the PUCT and ERCOT should establish ancillary and other services to keep the grid reliable. In an effort to establish such a standard, the PUCT began a project in 2023 - Project 54584 - and approved a PFD in June of this year. Comments were due July 15th and some 28 stakeholders representing generators, consumer organizations, retail electric providers, large and

small consumer organizations, private and public utilities and others issued comments. Many of those commenting including the Sierra Club pointed out that the reliability standard is a measure meant to assure a reliable grid, but that the actual mechanisms to achieve that grid can include many tools, from ancillary services, to emergency reliable services, to energy efficiency programs, to changes in the ORDC or maximum pricing. While the particular reliability standard proposed by the PUCT - which includes a duration, frequency and magnitude component - was met with a variety of opinions, no one who commented was opposed to the need to adopt a reliability standard. Again, however, the reliability standard is a system-wide ERCOT standard, and not a specific obligation on loads and all consumers.

One particular mechanism - known as the PCM (Performance Credit Mechanism) is authorized by HB 1500, but only if needed. The legislation thanks to the efforts of many on the Committee comes with rigorous guardrails, including a \$1 billion net-cost limit, a required cost-benefit analysis, and several steps which must be taken before a PCM could be required, including implementation of DRRS and co-optimization. The PUCT has opened up a project - Project No. 55000 - designed to establish the guardrails and potentially a PCM. In May the Commission requested comments and some 25 entities including ERCOT and the PUCT responded. On July 25th the PUCT held an additional workshop to obtain answers to a number of additional questions from participants. The video of that workshop can be found here - <https://texasadmin.com/tx/puct/workshop/202407252/>. The PUCT is expected to finalize a proposal in August, at which point the PUCT and IMM would conduct a cost-benefit analysis based on the adopted proposal. We believe that the PCM will ultimately not be necessary but will await the final proposal and cost-benefit analysis.

Indeed, the passage of HB 1500 specifically does not require the PUCT to implement that option. The Sierra Club, as a conservation organization with some 25,000 members in the Lone Star state, and as a member of ERCOT as a small commercial representative, very much supported these parameters and guardrails. Importantly, our view is that the PCM is a tool that should only be implemented if it is determined that it is cost-effective, needed and only after other tools, such as existing and new ancillary services (including ECRS and DRRS), and co-optimization are implemented. Realistically, both DRRS and co-optimization will take several years to develop, which not only provides additional time to develop a potential PCM but also observe whether it is in fact needed, and would be cost-effective. Like many stakeholders, we do not believe that PCM can be easily implemented and believe the complications of establishing collateral requirements and determining how to determine the cost cap (essentially energy and ancillary costs with a PCM minus energy and ancillary costs without a PCM) are not worth the effort. We believe there are more cost-effective

approaches to assure reliability in our market, including by implementing efforts to enable more distributed energy resources, demand response and energy efficiency to grow in our market, assuring the Texas Energy Fund is implemented in a fair and effective manner and implementing DRRS and co-optimization.

Section 39 and 40, Back Up Generation. Allows a transmission and distribution utility to lease and operate facilities that provide temporary emergency electric energy to aid in restoring power in certain circumstances.

As part of the PUCT sunset bill - HB 1500 - provisions contained in Senator King's SB 1075 - *Relating to facilities and construction machinery used to respond to power outages* - were included. These provisions can be found in Sections 39 and 40 of the final version of the bill. These provisions allow private utilities like Centerpoint Energy or Oncor to utilize mobile backup generation and other facilities used in power outages to help restore power, and charge ratepayers for the investment. Nonetheless, the recent experience in the Houston area is that none of these mobile generation units were actually used to restore power, meaning that ratepayers are paying for a product that has been a failure, at least in the recent case. Some \$800 million in ratepayer backed gas generators were not even utilized in the recent storm. Centerpoint's decision to invest in larger transmission-level generators that are not useful in a storm like Beryl (or for that matter the Derecho winds in May) must be assessed, and Sierra Club would support clarifications in the law.

Other solutions are available and needed, including enabling solar and storage customer-sited solutions, and the use of microgrids that can operate independently of the larger system. Several sessions ago, the Legislature passed a bill to allow transmission and distribution companies to contract up to 100 MWs in battery storage technologies to help provide additional service, but that legislation has yet to be implemented. We call on the PUCT to enable the use of storage, but also believe the legislature may want to look at how to continue to enable customer-sited solar and storage facilities and even Electric Vehicles to be better incorporated into the market to help with resiliency, and recovery in the event of a storm. Relying only on gas generation is a mistake, and both market solutions and ratepayer backed solutions should be examined.

Other HB 1500 Provisions

It's important that in addition to the cost-benefit analysis of the PCM required by HB 1500, the PUCT is also required to conduct a thorough analysis of the ancillary services and make any appropriate changes. Many stakeholders believe that conservative

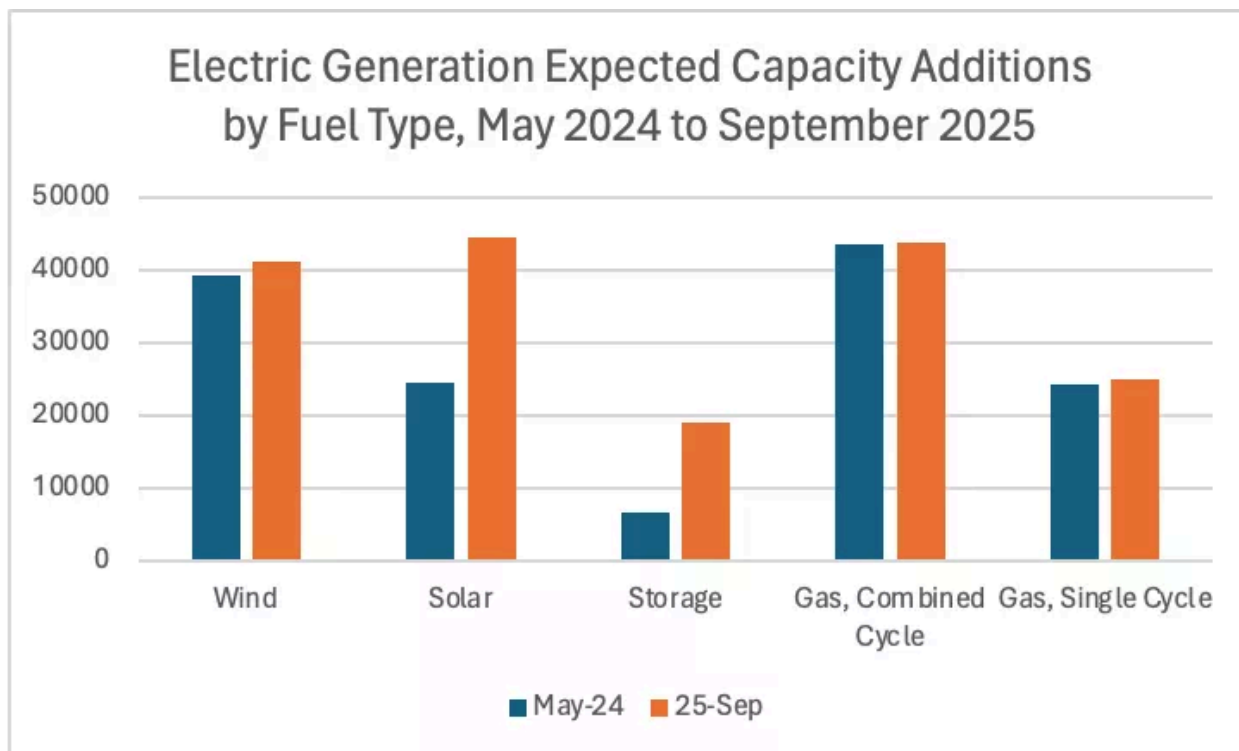
operating procedures have been expensive and unnecessary and the review will be an important and necessary exercise. We are still awaiting this ERCOT-led review with PUCT oversight.

Implementation of Texas Energy Fund and SB 2627: Focus on Supply Side alone is not enough

Over the last two sessions, most of the effort through approved new laws like SB 3, HB 1500 and SB 2627 has been on creating requirements to bolster the supply side of the grid, including tax-payer backed incentives such as the Texas Energy Fund, and new adequacy products like the Dispatchable Reliability Reserve Service (DRRS). While Texas has not suffered through another winter storm Uri event that has impacted residents in virtually the entire state due to failures of the entire ERCOT grid, we have instead been beset by millions of Texans losing power in localized areas due to failure on the distribution side of the grid. We must instead focus on distribution solutions and also those at the customer-side of the electric system, including demand side management and energy efficiency programs.

Voters approved and expected money for all four programs through Proposition 7 that are collectively part of the Texas Energy Fund to begin. Two of the programs are more narrowly focused on energy supply and the rules have been written. Thus, companies have already applied to seek state-backed loans for power plants, while the rules for completion bonuses have already been written. By all accounts, the interest from private investors in gas technology has been impressive. To be clear, Sierra Club does not believe this investment is needed because other technologies like solar and storage, and newer technologies like geothermal power are increasing without the need for taxpayer-backed incentives. Still, the PUCT has done their job, approving rules with significant stakeholder input and has received 72 applications for loans through the Texas Energy Fund's In-ERCOT Generation Loan Program. In total, the applications request \$24.41 billion to finance 38,379 megawatts of proposed dispatchable power generation projects in the Electric Reliability Council of Texas (ERCOT) region. Apparently, the PUCT intends to make some decisions about which projects to move forward in August, since thus far only \$5 billion was appropriated for the purpose. Still, it is somewhat unclear how the public could provide input on any of the applications. At the very least, we hope PUCT will provide transparency in which projects move forward and how to access information about the projects and provide input. While to their credit, the PUCT has created a separate website found here - <https://www.txenergyfund.texas.gov/> - public input opportunities are not apparent. We would suggest the Legislature could encourage the PUCT to open a portal or way for Texans to provide input on proposed projects.

Again, it is important to note that gas generation is not the only investment occurring. Indeed, the largest increases in generation capacity is likely to be in solar and storage investments.



The charts show that the projects that already have interconnection agreements with local transmission companies that are most likely to be built in the next 18 months are solar and battery storage with only a handful of new gas plants likely to be added. However, the passage of Proposition 7, along with the potential addition of DRRS and potentially a PCM in future years make it likely that more gas plants – especially gas turbines – are likely to be built.

However, the other two programs approved by SB 2627 and endorsed by voters are intended to help on reliability and resiliency but thus far the rules have not been finalized, and additional monies still must be appropriated by the Legislature to implement them.

First, the Outside ERCOT Grant Program will provide funding for transmission and distribution infrastructure or electric generating facilities in Texas outside of the ERCOT power region. Under this program, the PUCT will award grants for the modernization of infrastructure, weatherization, reliability and resiliency enhancements, and vegetation management. Second, TEF will provide grants and loans to qualifying entities to design,

procure, or install backup power packages at facilities necessary to support community health, safety, and well-being. A backup power package is a stand-alone, behind-the-meter, multiday backup power source. Again, while an advisory committee led by Senator Johnson has been named and held several meetings, rules have not been approved for these taxpayer-backed backup power packages.

Political leaders have announced that the Legislature intends to appropriate the other \$5 billion for the TEF. They have focused narrowly only on the supply side issue - more gas plants. The Sierra Club hopes that rather than only dedicating these funds to new gas plants, we instead invest in programs for resiliency which ultimately will benefit customers more. Our grid does not have a major supply issue, it has an issue with getting power where it is needed and keeping the lights on when climate extremes occur. Taxpayer funds are better served helping customers, not gas generation investors.

Implementation of SB 1699: The Legislature has still only made limited strides on demand-side management

One bill supported by the Sierra Club - SB 1699 by Senator Nathan Johnson and sponsored by Chairman Hunter in the House - was signed by Governor Abbott is important because it protects and allows the use of Distributed Energy Resources - such as battery storage and customer-sited solar by customer and third parties such as retail electric providers (REPs), while also allowing certain advances in residential demand response. Unfortunately, rulemaking has yet to begin though indications are that it should begin soon.

To their credit, the PUCT implemented a pilot project for Aggregated Distributed Energy Resources in the competitive market even before the last legislative session and since passage of the bill has taken some steps to begin to implement these legislative directives such as opening up questions for stakeholder input. Specifically, the PUCT asked stakeholders a series of questions on how to implement SB 1699 and how in general to improve the TDU energy efficiency programs as part of ***Project No. 56517 - Review of Energy Efficiency Planning***. In response, more than 20 stakeholders did submit comments.

ERCOT itself has also hired a professor at Texas A & M to assess the potential for other ways to incentivize the use of demand response in a market, so this study should help determine some possible parameters on which to base a goal. ERCOT has also proposed a new NPRR to better capture data about demand response that currently exists in the market. We would note that PUCT recently created a new Office of Energy

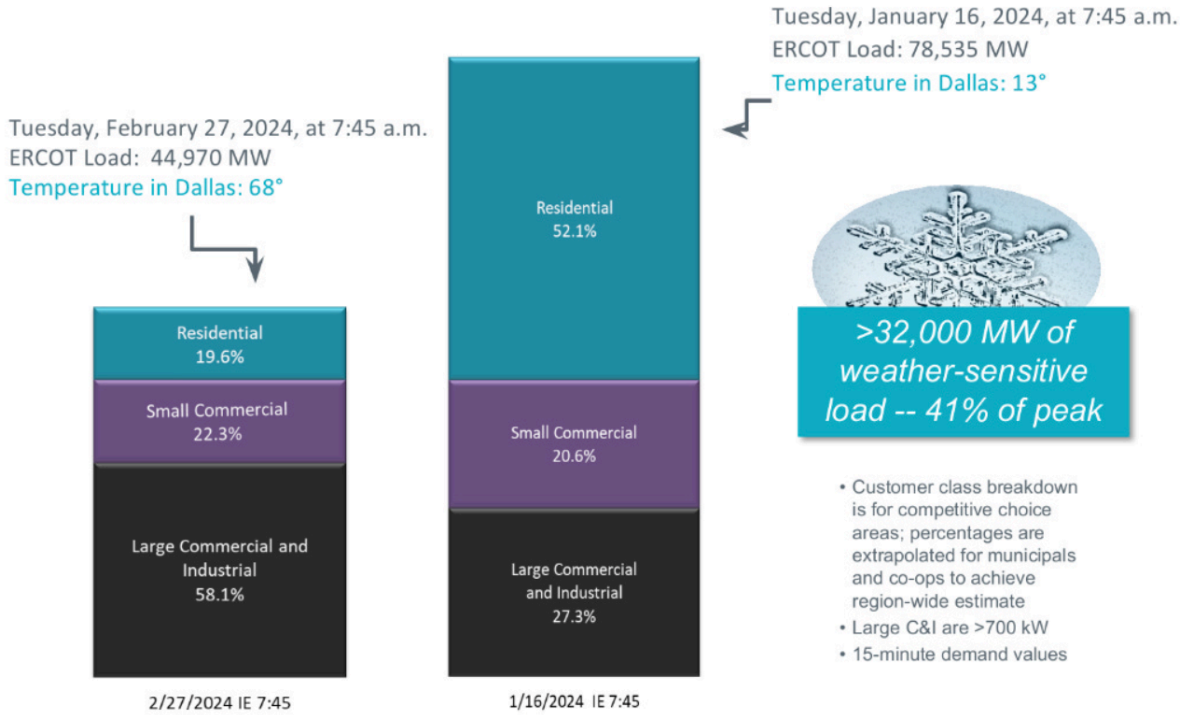
Efficiency and has hired new staff which should help make implementation of SB 1699 and other improvements more likely.

Some portions of the bill related to distributed energy resources are essentially clarifications of statute and may not require rulemaking, such as the clarification that a retail electric provider that supports the use of Distributed Energy Resources in the market does not risk being categorized as a generator. Still, other parts of SB 1699 do require rulemaking, and they have still failed to move forward with actual rulemaking, which we believe is required. Both local distributed energy resources - such as local storage and solar - along with demand response - shifting energy use during peak periods or in periods like storms when the grid is under stress - could be hugely impactful on both the transmission and distribution levels. In a recent presentation by ERCOT, ERCOT itself showed how much our load increases due to residential heating and cooling during hot and cold weather. Thus, during certain periods, residential load can make up a sudden increase in our electricity demand by some 35 to 40 percent depending on the season. Having well developed programs that pay consumers to shift their energy use could be hugely beneficial to both resiliency and reliability.

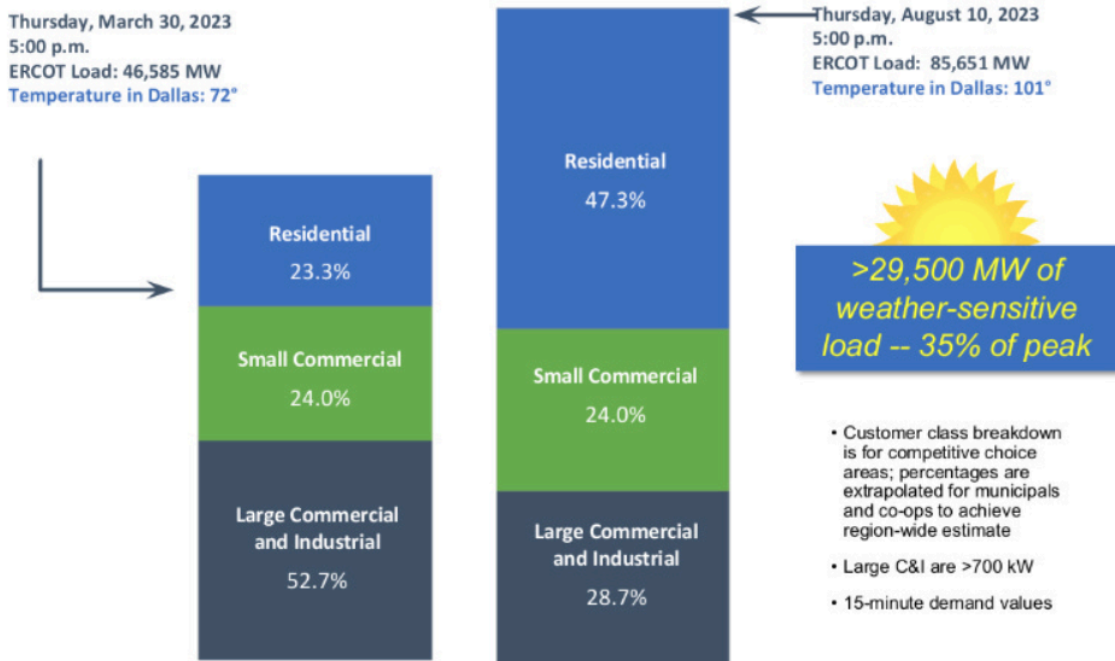
The PUCT has indicated it plans to take up rulemaking soon. There are actually two provisions of SB 1699 related to demand response programs. First, the bill allows up to 10 percent of an ERCOT utility's annual energy efficiency programs to be spent on residential demand response programs that allow Retail Electric Providers to participate. In their 2025 energy efficiency plans and proposed fees to pay for their plans known as EECRF, both Centerpoint Energy and ONCOR the two largest ERCOT TDUs have indicated they plan to utilize this provision to begin retail electric provider residential demand response programs by incentivizing the use of smart thermostats. This is a good start. However, both AEP Texas and TNMP have instead indicated they will not start programs until 2026. We hope that stakeholders, the utilities and the PUCT will work to assure that all utilities begin such programs, which would be incredibly useful to the market. Second, the bill requires the PUCT itself to establish a goal for residential demand response in Texas for customers who have access to devices such as smart thermostats, appliances (such as heat pumps or water heat pumps) or pool pumps that allow for demand response. This goal is not limited to the four private ERCOT utilities but to the market as a whole.

The Sierra Club looks forward to the results of the ERCOT study and PUCT opening up rulemaking soon.

Winter Weather Impacts on Load by Customer Type



Summer Weather Impacts on Load by Customer Type



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Weatherization and Energy Efficiency Programs Would Help: Senate passed SB 258 but House didn't move it forward

Last Legislative session for the first time in over 12 years, the Senate took action by passing SB 258 by Eckardt to raise the utility energy efficiency goals to one percent of total energy sales. Nonetheless, the House failed to take action on the Senate measure and sadly Texas remains at the end of the line in terms of states with energy efficiency savings. Increasing goals and programs at both private and public utilities would help make our system more resilient and directly help save lives by making buildings more resilient. Unfortunately, unless either the legislature or acting on its own the PUCT begins rulemaking to increase goals, utilities are unlikely to increase offerings on their own. Recent 2025 plans (supported by proposed EECRFs submitted by both ERCOT and non-ERCOT utilities) are very similar to past years. We do recognize that both Oncor Electric and Centerpoint Energy did propose to increase their program budgets in 2025 compared to 2024 and add important residential demand response programs. We support these increases, but both entities as well as AEP and TNMP could nearly double their programs and still be under the cost caps established by the PUCT. We are hopefully that as part of rulemaking related to SB 1699, the PUCT could make other

changes to the energy efficiency programs as they have promised for several years now.

Building codes are an important resilience measure

Buildings built to more modern building standards such as the 2021 International Residential Code and 2021 International Building Code are more energy and water efficient, and better protect against floods, high winds and other climate extremes. While cities have latitude to adopt these codes, Texas statutes and authority are a hodgepodge of differing standards. A bill that passed the Senate and House last session - SB 2453 by Senator Jose Menendez - but vetoed by the Governor - would have given specific authority to the State Energy Conservation Office to raise state minimum standards. Other bills involving raising building code standards did not make much headway but we believe that reasonable codes could help protect Texans from weather extremes and should be a focus in 2025. The most recent codes approved by the Code Council include electric vehicle and solar ready provisions to better incorporate new technology.

Climate Change is Real and Solutions Must be Multi-Faceted

The evidence is there for all to see. The climate is changing and no state has been more impacted by major climate events in recent years than Texas. The year 2023 was the warmest year since global records began in 1850 at 1.18°C (2.12°F) above the 20th-century average of 13.9°C (57.0°F). This value is 0.15°C (0.27°F) more than the previous record set in 2016. The 10 warmest years in the 174-year record have all occurred during the last decade (2014–2023). According to the NOAA, there have been 391 events since 1980 where damages from a storm or event have exceeded \$1 billion, which have also led to the deaths of more than 16,500 US residents, and no state has had more economic losses of \$1 billion dollars due to climate and weather extremes than Texas over that time period.¹ Indeed, there have been 183 such events with an estimated cost of between \$300 and \$420 billion, and 55 of those events have occurred in the last five years. Insurance claims and cost are rising and we are in danger of following in the heels of states like Florida where major companies are leaving the state

In essence our electric grid, and especially our distribution system where most customers receive their power, was built for a different era, before warming temperatures, sea level rise, more extreme storms and hurricanes and other impacts ravaged our basic infrastructure. While 30 years ago, or perhaps even 10, it made

¹ NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2024). <https://www.ncei.noaa.gov/access/billions/>, DOI: [10.25921/stkw-7w73](https://doi.org/10.25921/stkw-7w73)

sense to build a cheaper system, today it is foolish to build a house of straw when a house of bricks is required. We can not snap our fingers and hope the climate returns to the way things were 30 years ago, but we can work to lower the emissions that are fueling the climate crisis and create resilient measures that will help mitigate the worst impacts of climate change, and even do so in a way that benefits our economy and quality of life.

We can not and should not stick our heads in the sand and pretend that yesterday's solutions will work. Climate extremes are a reality and it is incumbent upon us to look for local and smart investments that consider the needs of our most vulnerable citizens.

Micro-Grids, DERS, DR, EE, EVs and "Traditional" Distribution Investments all can help with resiliency but we can not rely on the private sector alone

Relying on companies like Centerpoint Energy alone that have focused mainly on profitability and shorter term gains to solve our problems is a mistake. We have seen how utilities wait until disaster strikes and then seek to recover costs and put solutions on the backs of customers. While HB 2555 is a partial solution, given the experience of Beryl we must reassess these initial resilience plans and consider additional measures. We must bolster the private sector investments with state and federal regulations and investments as well. First, there are billions of dollars available to Texas due to both the IIJA of 2021 and IRA of 2022. Texas state agencies should be aggressive in applying for these funds to help customers better prepare for winter and summer extremes and weatherize buildings and our electric system. We must honor the voters' wishes to fund all four TEF programs, including outside of ERCOT resiliency plans and backup power packages. These efforts can help reduce the costs on ratepayers. Still, to be clear, making our electric system more resilient is likely to increase costs on electric consumers. This increase can be offset however by programs that help customers reduce their energy use, along with proper standards like more advanced building codes. Distributed Energy Resources, Electric Vehicles as Vehicle-to-Grid, local storage, backup power for critical facilities and neighborhoods, traditional distribution investments, demand response and energy efficiency and better built buildings will all be needed with a combination of private, public and individual investment if we are to make our grid more resilient.