

Capital Region 7 Report

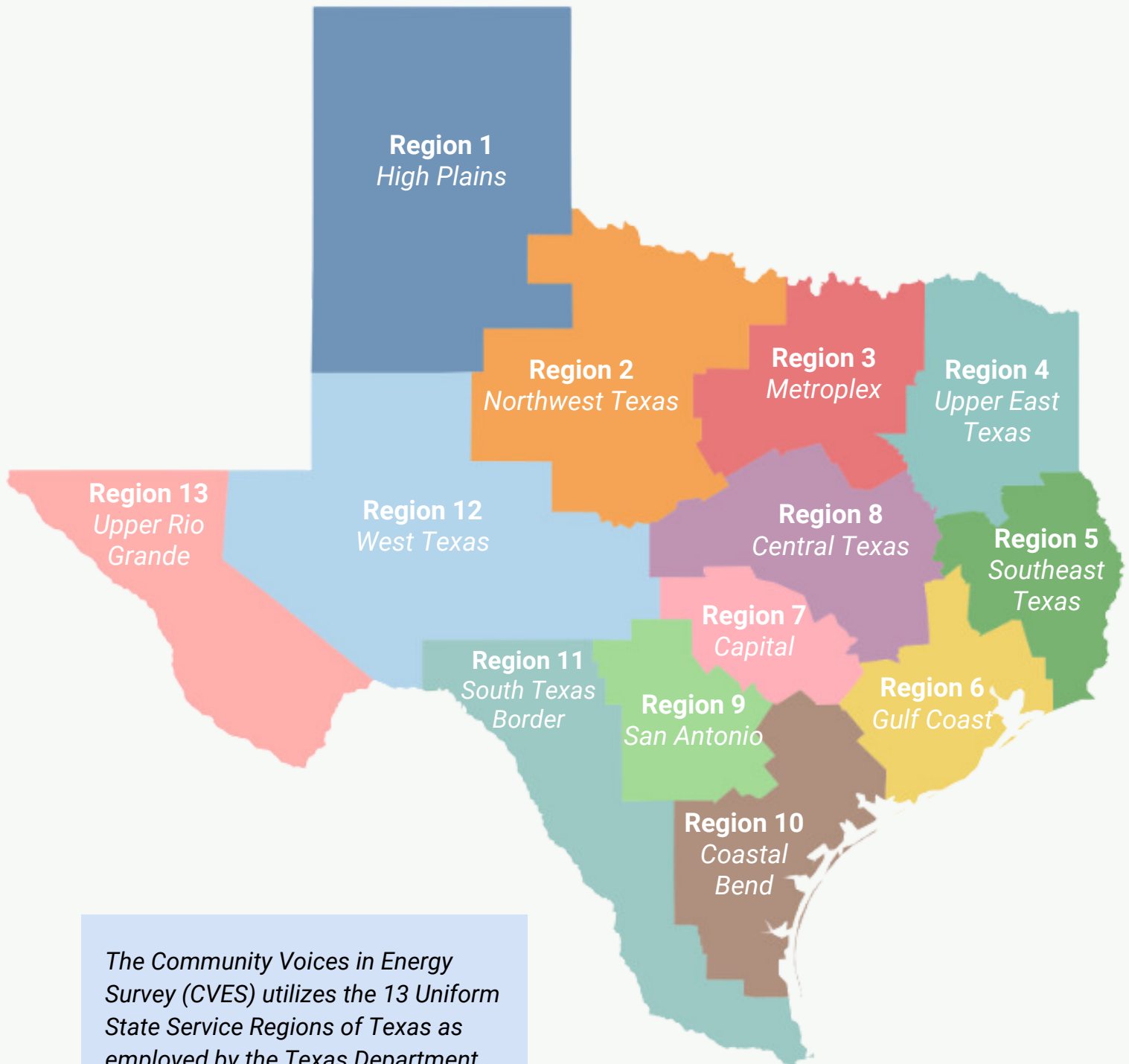
Community Voices in Energy Survey

December 2023



Image: Pedernales Falls State Park

CVES Survey Regions



The Community Voices in Energy Survey (CVES) utilizes the 13 Uniform State Service Regions of Texas as employed by the Texas Department of Housing and Community Affairs (TDHCA).

About the Community Voices in Energy Survey

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Energy Burden Overview and Map Page 6	Demographics at a Glance Page 7	Less than \$13,000	Extremely Low Income
Energy Bill Affordability Page 8	Energy Assistance - Gaps and Opportunities Page 9	\$13,000-27,000	Very Low Income
Energy Reliability and Resiliency Page 10	Demand Response and Clean Energy Perspectives Page 11	\$27,000-50,000	Low Income
		\$50,000-80,000	Moderate Income
		Over \$80,000	High Income

The Community Voices in Energy Survey (CVES) solicited feedback from households that contend with low incomes to better understand concerns around affordable, reliable, and clean energy. Primarily low-to-moderate income households earning below the region’s median income were surveyed across the Texas Department of Housing and Community Affairs (TDHCA) 13 Uniform State Service Regions. Survey respondents were household members who were at least 18 years old and responsible for energy management decisions in the household.

As the cornerstone of TEPRI’s research initiatives, this survey series aims to measure the lived experiences and opinions of households that contend with low-moderate incomes (LMI) as they relate to energy burden, energy insecurity, climate risks, and other key energy-related factors.

CVES data and reports are intended to help inform stakeholders (including lawmakers, regulators, utilities, and community-based organizations) to make better and more informed decisions to address the energy needs of Texas households.

Summary - Region 7 | Capital

Region 7, known as the "Capital," is distinguished as **the fastest-growing region in the state, experiencing a remarkable population growth rate of 31.5% since the 2010 Census**. The region includes the Austin-Round Rock-Georgetown Metropolitan Statistical Area (MSA), which makes up an overwhelming 94% of the region's population. With the highest median income of all regions, Region 7 continues to experience strong growth, driven by the expansion of technology and engineering industries.

Despite its economic prosperity, Region 7 faces substantial energy and energy insecurity challenges. The survey revealed that **47% of respondents in the region do not consider their energy bills affordable**. The energy affordability concerns are particularly impactful on households that contend with low and moderate incomes (LMI).

Energy insecurity, particularly in the form of high energy burdens, places significant strain on LMI households, forcing people to make difficult tradeoffs. Renters, respondents of color, and residents in manufactured homes reported heightened difficulties in managing monthly energy expenses. These constraints result in people making significant tradeoffs, including cutbacks on other categories such as clothing, entertainment, and, in extreme cases, food. **Despite facing disconnections and payment issues, only 10% of respondents are enrolled in any energy bill assistance programs**, with a significant portion citing lack of awareness as the primary reason for not receiving financial assistance.

The survey explores disparities across different counties, revealing **that dense urban areas generally experience lower energy burdens than their rural counterparts**. Concerns about extreme weather events leading to power outages were pervasive, however, particularly among lower-income households. In addition, respondents expressed a notable willingness to reduce energy consumption during grid emergencies in exchange for various incentives.

Results also revealed that while support for clean energy is evident, especially among younger adults, actual enrollment in clean energy programs lags. This trend may be influenced by economic considerations, including the ability or willingness to pay an additional monthly premium for clean energy. Respondents consistently prioritized affordability, reliability, and sustainability in shaping their energy concerns, showcasing a growing awareness of the impact of extreme weather events on energy reliability.

In navigating Region 7's energy landscape, policymakers, energy providers, and community organizations should prioritize tailored initiatives that consider the specific needs of diverse populations. Solutions should promote awareness of energy assistance programs and foster community-driven efforts toward cleaner and more equitable energy solutions.

Key Survey Results

631

Sample Size
Region 7

6,520

Sample Size
State of Texas

Survey Period
Dec 2022 - Mar 2023

Energy Bill Affordability

- Almost 50% of respondents do not consider their energy bills affordable.
- Forty percent of respondents with annual household incomes of less than \$13,000 and 37% with annual household incomes between \$13,000 - \$27,000 'strongly agree' that they struggle to pay their monthly energy bills.
- People in manufactured homes are the most likely to struggle to pay their electricity bills most months.
- Homeowners were more likely than renters to consider their energy bills to be affordable.
- Respondents cut back on entertainment (48% of respondents), clothing (42%), and food (26%) to cover monthly energy costs.
- Disconnections and disconnection notices in this region from non-payment of energy bills were the most prevalent among respondents with household incomes of \$27,000 or less.
- Despite high disconnection/notices, only 10% of respondents reported participating in energy assistance programs.
- The most frequently cited barrier to energy program participation was lack of awareness, reported by 41% of respondents.

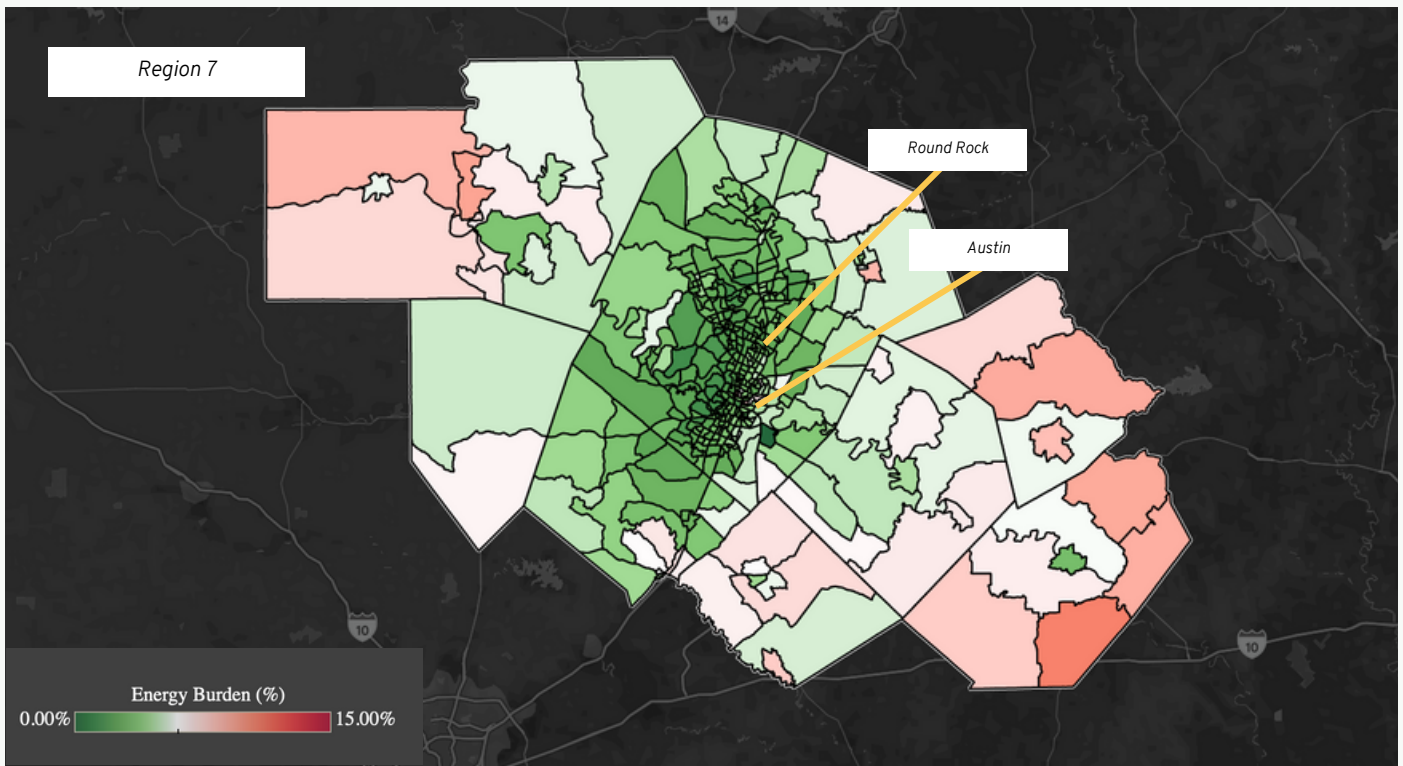
Energy Reliability

- Ninety-two percent of respondents expressed at least some concern about weather-related outages
- Twenty-six percent of respondents with annual household incomes below \$50,000 report extreme concern, compared to 16% of respondents with moderate and high incomes.
- Almost the same percentage of homeowners (93%) and renters (92%) expressed concern about weather-related outages
- Respondents with annual household incomes below \$50,000 were the most willing to reduce energy use in exchange for incentives.

Perspectives on Clean Energy

- About 10% of respondents are enrolled in clean energy programs, mirroring the statewide average of 10%.
- Across income groups, 43% of respondents expressed a willingness to pay a monthly premium for clean energy and 30% of households with children were willing to pay an extra \$1-5 to their energy provider for clean energy sources.
- Thirty-five percent of respondents with annual household incomes of less than \$50,000 are willing to pay \$6 -\$10 extra on their monthly energy bill for clean energy.

Energy Burden Region 7 - Capital



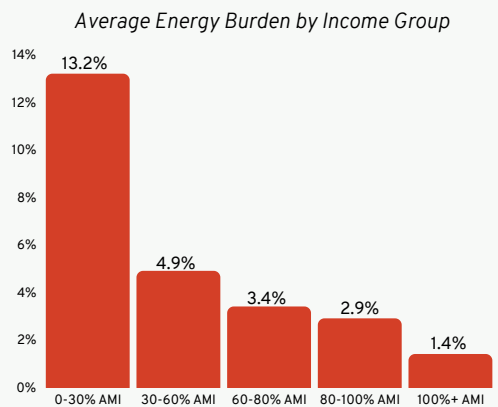
Region 7 Energy Burdens by Census Tract

3.6% Average Energy Burden - All Households

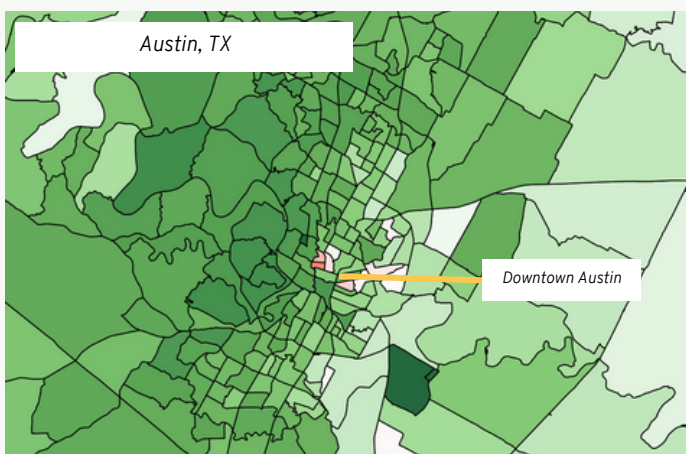
\$1,902 Average Annual Energy Costs - All Households

6.9% Average Energy Burden - LMI Households

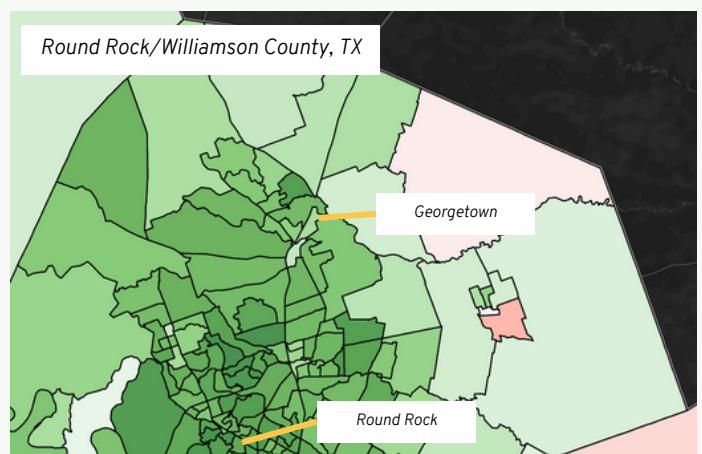
\$1,677 Average Annual Energy Costs - LMI Households



Zooming In: Two Largest Urban Areas



Austin-area Energy Burden by Census Tract



Round Rock-area Energy Burden by Census Tract

Region 7 Overview - Capital

Most Populous Cities

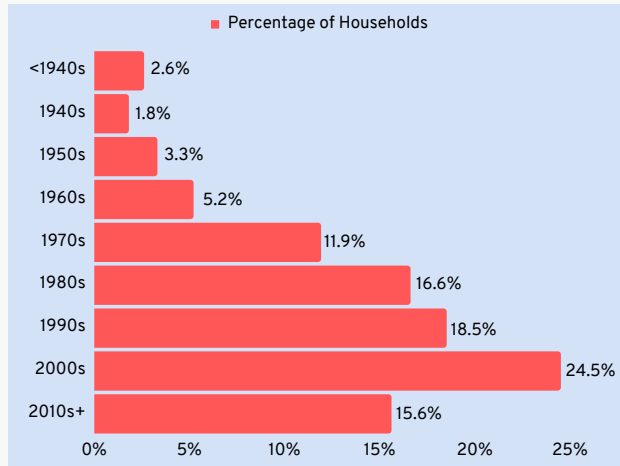
Austin	974,447
Round Rock	126,697
Georgetown	86,507
Cedar Park	77,642
Leander	74,375

2022 population estimates

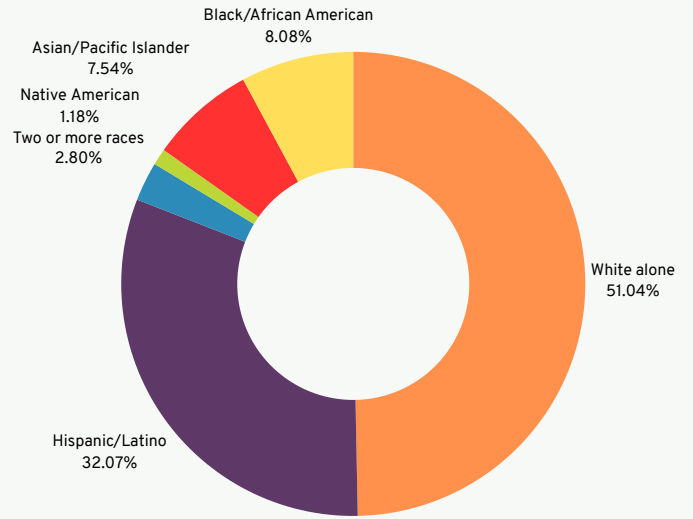
909,295 Households in Region 7

\$84,405 Median Household Income

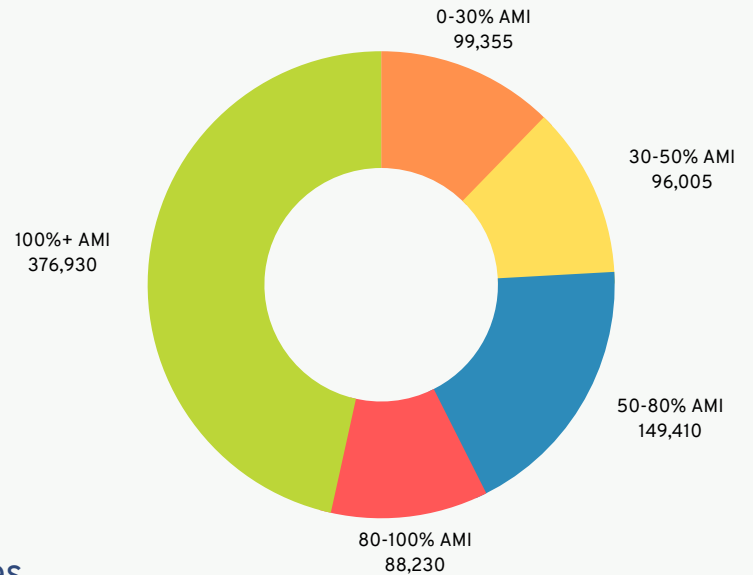
Age of Housing Stock



Race/Ethnicity



Households by Income Group



Top 5 Industries by Number of Employees

- Education, Healthcare, Social Assistance
246,631
- Professional, Scientific, Management, Administrative, and Waste Management
202,352
- Retail Trade
128,399
- Arts, Entertainment, Recreation, Accommodation, Food Service
113,366
- Construction
97,263

Homeownership, Internet Access, Poverty, and Age

61% of residents live in owner-occupied homes	91% of households have broadband internet access
10% of residents live below the Federal Poverty Line	13% of residents above the age of 65

Sources: U.S. Census Bureau (2020-2022), Texas Department of Housing and Community Affairs (TDHCA), National Renewable Energy Laboratory (NREL) - ResStock (2018)

Energy Bill Affordability

This section explores how survey participants responded to questions about energy affordability, including affordability perceptions and tradeoffs.

Thirty-eight percent of all respondents do not consider their energy bills to be affordable. Looking deeper, 39% of respondents with annual household incomes of less than \$13,000 and 16% with incomes between \$13,000-27,000 'strongly agree' that they struggle to pay their monthly energy bills.

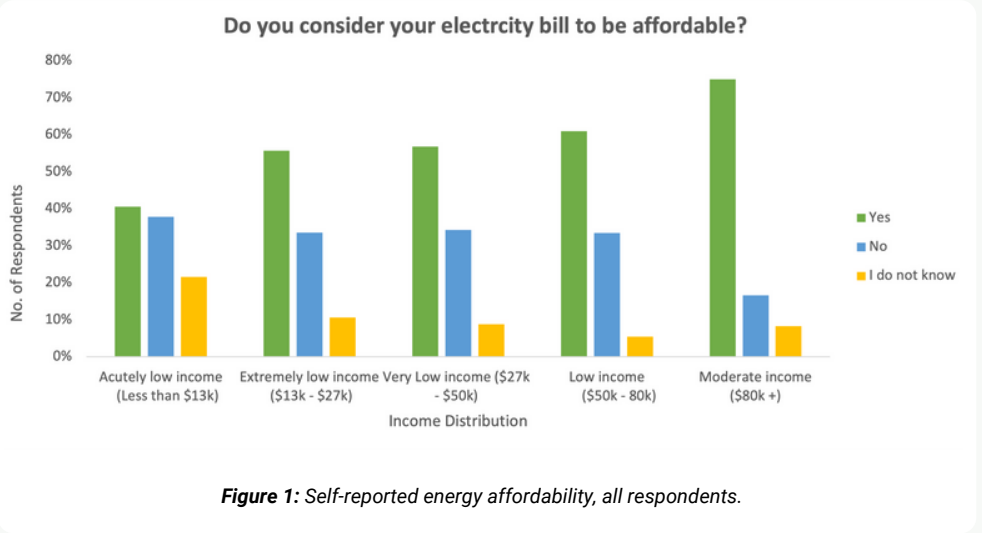


Figure 1: Self-reported energy affordability, all respondents.

Across housing types (single-family, multi-family, semi-attached, and manufactured homes), **manufactured home residents were most likely to report challenges with paying electricity bills most months, with 51% reporting challenges.** In contrast, respondents living in single-family homes were the most likely to view their bills as affordable.

The survey also identified that in Region 7, **homeowners were more likely than renters to consider their energy bills to be affordable.** Approximately 55% of respondents who rent consider their energy bill to be affordable, compared to 63% of homeowners.

Low-income households often make tradeoffs to afford their energy bills, including keeping homes at uncomfortable or unsafe indoor temperatures. The most commonly reported **cutbacks in other spending categories were: entertainment (48% of respondents), clothing (42% of respondents), and food (26%).** Respondents of color reported they were more likely than their White (non-Hispanic) counterparts to cut back on essential household needs to afford their energy bills. Conversely, across age groups, older individuals were the least likely to report making such cutbacks.

Following entertainment, clothing was the second most cited area of household spending where cutbacks were reported. Nearly 60% of respondents with annual household incomes below \$50,000 reduced their spending on clothing, compared to 49% of respondents with incomes exceeding \$50,000. Similarly, respondents with annual household **incomes below \$50,000 exhibited the highest reported levels (41%) of tradeoffs in the food category.**

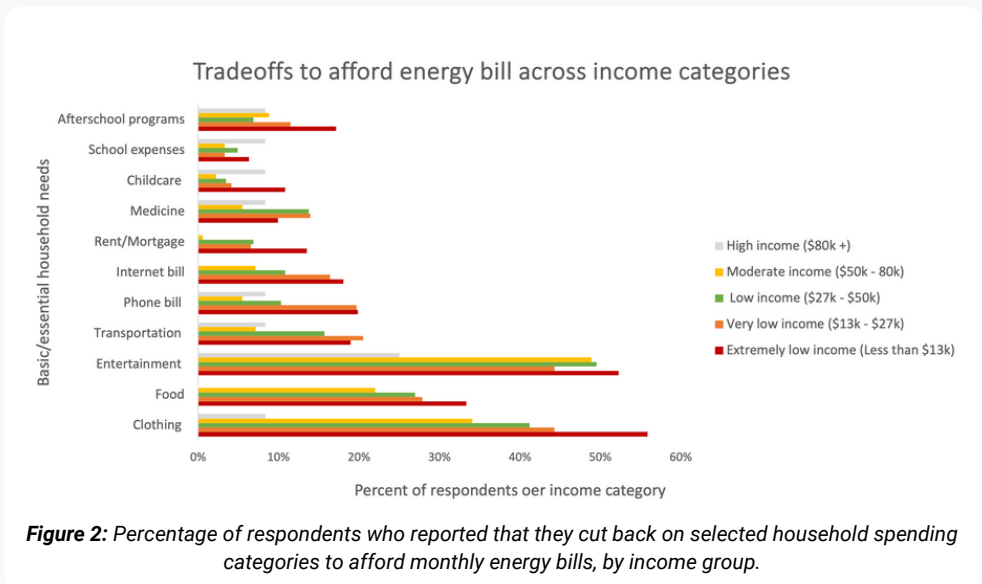


Figure 2: Percentage of respondents who reported that they cut back on selected household spending categories to afford monthly energy bills, by income group.

Energy Assistance - Gaps and Opportunities

This section explores the prevalence of electricity disconnections (or disconnection warnings) and the level of participation in energy assistance programs.

In the 12 months preceding the survey, **9% of respondents reported electricity disconnections due to nonpayment**. Furthermore, **31% of respondents received warnings for nonpayment of their energy bills and faced potential disconnection**. The respondents most susceptible to these notices in Region 7 were households earning less than \$27,000 annually.

Respondents of color made up a disproportionately high concentration of respondents who experienced disconnection warnings (54%) despite representing only 36% of the survey sample.

Among the 63 respondents in Region 7 who participated in energy assistance programs, **the most frequently cited sources for learning about these programs were energy providers, community centers, and social media**. These findings highlight the need for enhanced outreach, marketing, and educational initiatives to make financial assistance programs more accessible and increase awareness.

In Region 7, leveraging community centers and social media could be effective in advertising and enhancing awareness of energy bill assistance programs, particularly in a region with a younger and urban population.

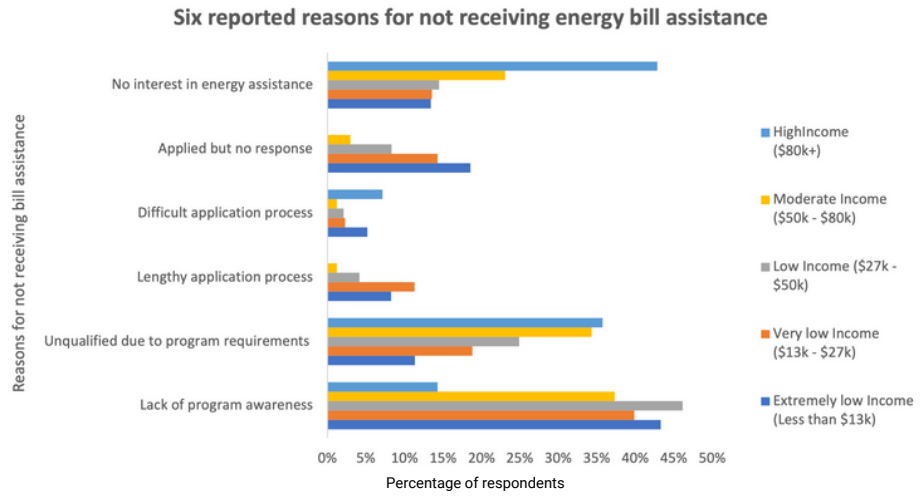


Figure 3: Reported reasons for not participating in energy assistance programs.

Despite facing disconnections and payment issues, **only 10% of respondents are enrolled in any energy bill assistance program**. Various reasons contribute to the low participation, including lack of interest, concerns about qualification requirements, and a predominant factor—awareness. **A significant 38% of respondents cited a lack of awareness as the primary reason for not receiving financial assistance**. The number of respondents who are unaware is almost double the next most frequently mentioned category of qualification requirements.

Individuals earning between \$13,000 and \$27,000 were more likely than higher earners to indicate unawareness of such assistance programs.

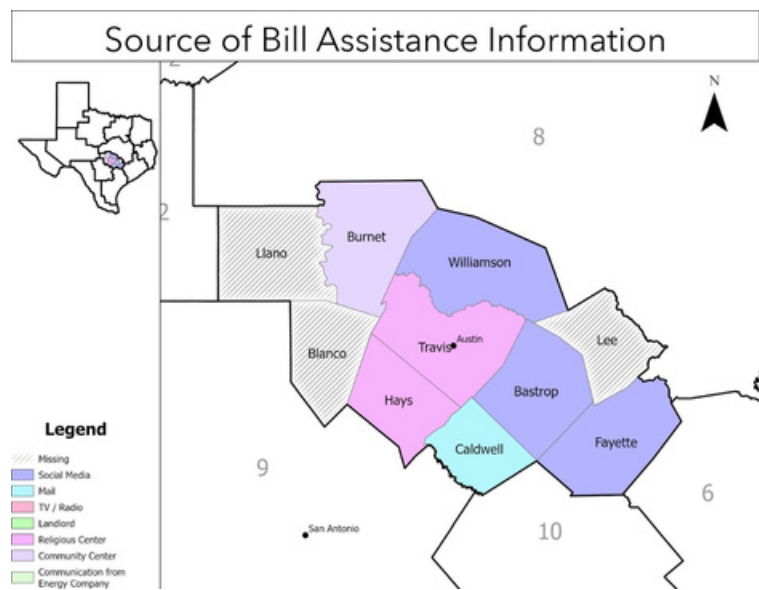


Figure 4: Most frequently cited source for learning about energy assistance programs, by county. Counties in grey are due to the small number of respondents who received energy bill assistance in these counties.

Energy Reliability and Resiliency

This section explores respondent perspectives on energy reliability and the impact of severe weather on the grid.

Ninety-two percent (92%) of respondents expressed at least some concern about weather-related outages. Region 7 experiences hot summer temperatures and is susceptible to severe thunderstorms, which may have an impact on respondent concerns.

Respondents with lower incomes reported heightened concern about the impact of extreme weather-related events on grid reliability and resilience. **Twenty-six percent (26%) of respondents with annual household incomes below \$50,000 reported extreme concern, compared to only 16% of respondents with moderate and high incomes.**

The majority of respondents (64%) reported concern about maintaining a safe temperature in their home (warm or cold) during a weather-related power outage. Fifty-eight percent (58%) of respondents were concerned about being unable to charge or power important devices. Almost the same percentage of homeowners (93%) and renters (92%) express concern about weather-related outages; with 25% of homeowners and 24% of renters extremely concerned.

Respondents with 'low - extremely low' annual household incomes are the most willing to reduce energy use for financial compensation.

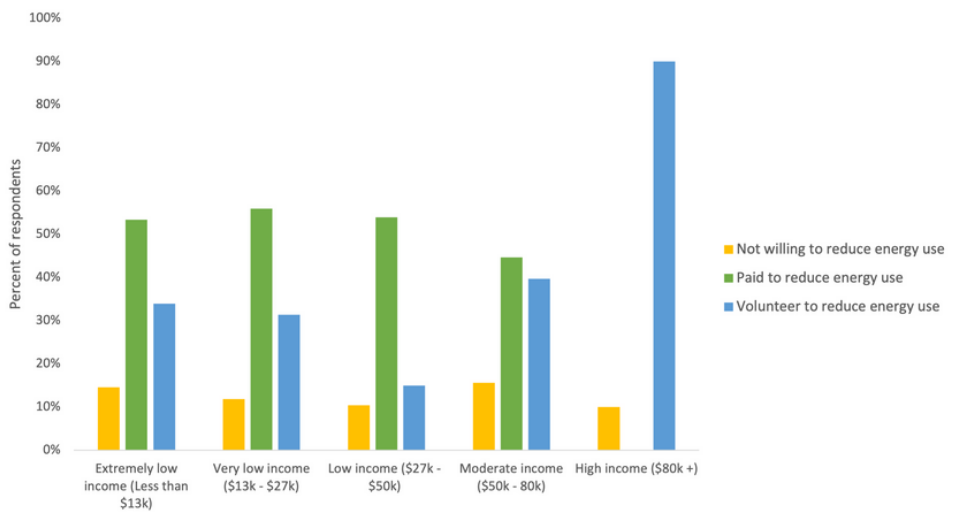


Figure 5: Willingness to conserve energy to prevent outages by income group.

As part of efforts to better understand how households in Texas may respond to electricity market practices such as calls for voluntary electricity reduction or demand response efforts, respondents were asked to choose what type of incentive, if any, they would need to conserve electricity usage during certain times.

More than half (51%) of respondents noted that they are willing to reduce their energy use for financial compensation (such as a credit on their energy bills) and about a third (36%) are willing to do so voluntarily. Only a small percentage (13%) of respondents stated that they are not willing to reduce energy use at all in an emergency to prevent a blackout

Renters and homeowners are about equally concerned about blackouts caused by bad weather.

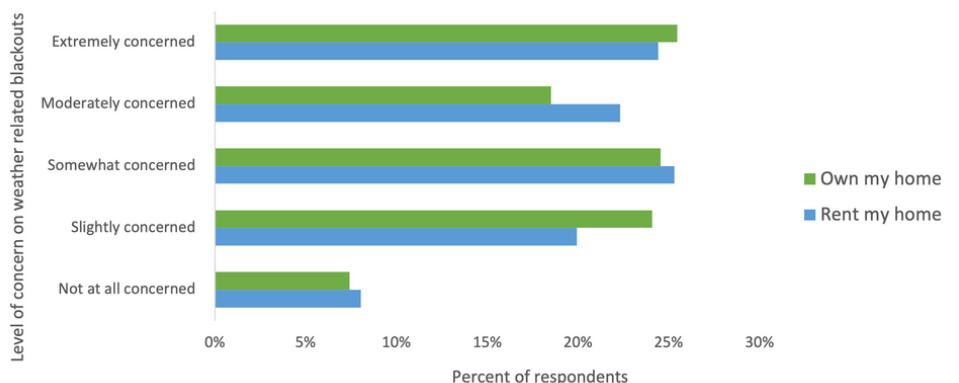


Figure 6: Respondent concern about weather-related power outages by homeownership status.

Clean Energy Perspectives

This section explores respondents' willingness to reduce energy use in response to different incentives, examines perspectives on clean energy, and surveys willingness to pay a monthly premium for clean energy.

Survey results reported that **10% of respondents are currently enrolled in clean energy programs**, mirroring the statewide participation average of 10%.

Furthermore, there appears to be no clear correlation between income and enrollment rates. Respondents with annual household incomes of \$80,000 and above reported the lowest enrollment rates, while households with annual incomes of \$13,000 and less, as well as respondents with annual incomes between \$50,000 and \$80,000, display relatively low enrollment rates.

While respondents in the majority of counties reported an openness to pay higher amounts on their monthly electricity bills for clean energy, respondents in Bastrop, Blanco, and Caldwell Counties were significantly less likely to report being willing to pay a monthly premium for clean energy.

In addition, **29% of households with children reported a willingness to pay an extra \$1-5 per month to their energy provider for clean energy**. Nevertheless, households with children were less willing to pay higher premiums beyond the \$1-5 threshold.

Over 40% of respondents in each income category are willing to pay additional money on their monthly energy bill for cleaner sources of energy.

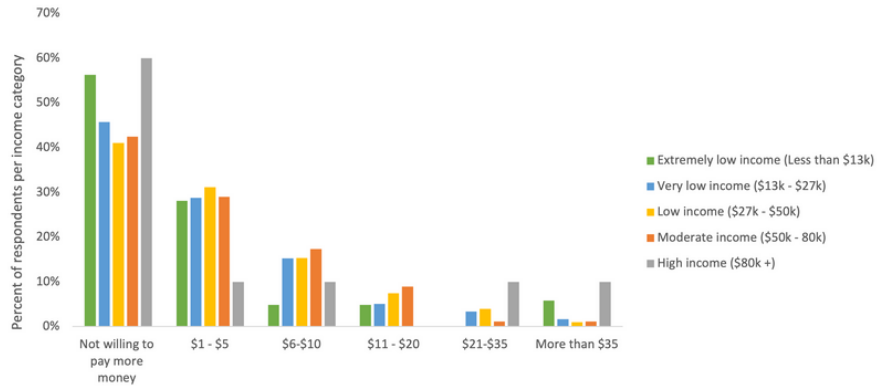


Figure 7: Self-reported willingness to pay selected monthly premiums for clean energy by income group.

Respondents were asked about their willingness to pay a monthly premium for their energy provider to use clean energy sources. **Of the respondents from Region 7, 43% of respondents reported being open to paying at least an additional \$1 per month for clean energy.** For the lowest income respondents, those with 'extremely low' incomes (28% of respondents), 'very low' incomes, (29%), and 'low' incomes (31%), expressed a willingness to pay an extra \$1-5 monthly for clean energy. Notably, **35% of respondents with annual household incomes of less than \$50,000 are willing to pay \$6 - \$10 extra** on their monthly energy bill for clean energy. Nevertheless, 56% of respondents earning less than \$13,000 annually and 60% of those with annual household incomes exceeding \$80,000 expressed reluctance to pay a monthly premium for clean energy.

Willingness to Pay Extra for Clean Energy

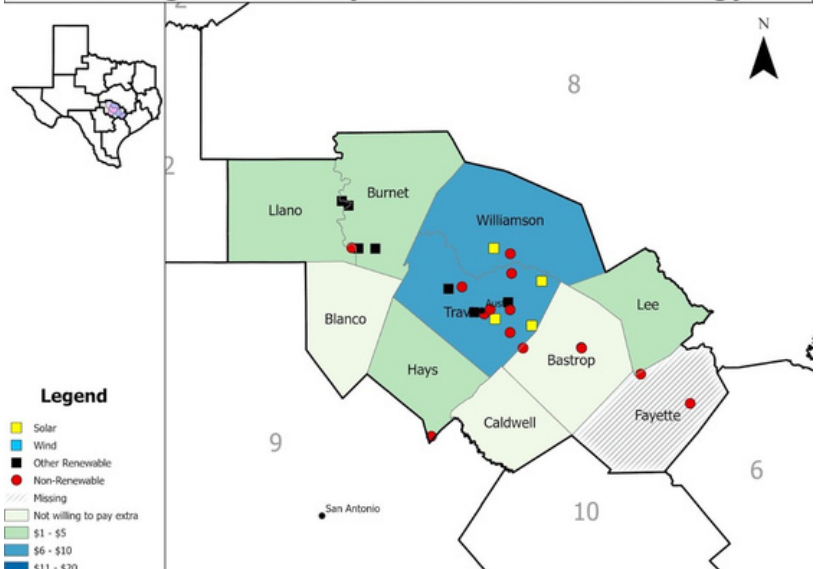


Figure 8: The average willingness of respondents to pay a premium to consume clean energy. This figure also shows the distribution of power plants in the region.