Energy Equity Factsheet: Arizona

Energy Equity Project

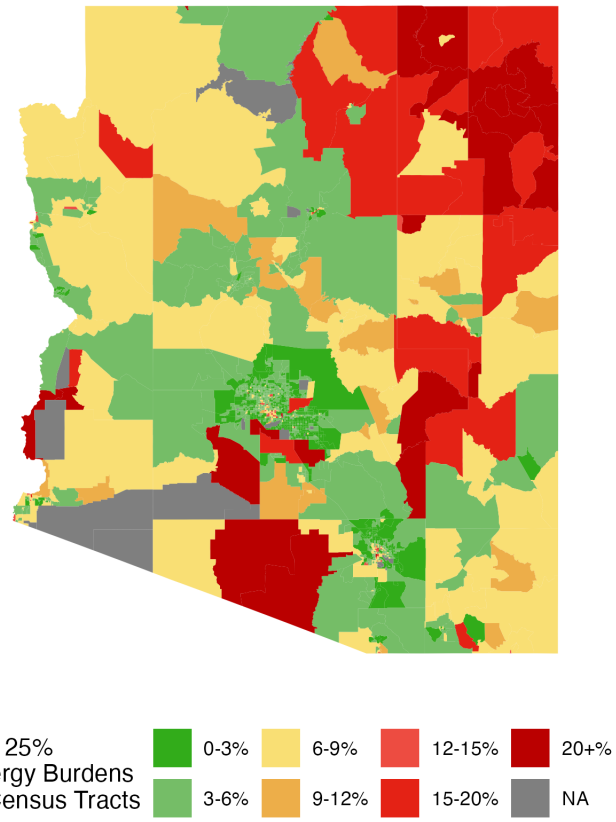
Energy touches all aspects of modern life, and too often, energy unaffordability and insecurity have devastating impacts on health and well being. This fact sheet is a starting point that sheds light on the disparities that exist in Arizona's energy system, and how this compares to the nation as a whole.

(Un)Affordability

Energy Burden: The percentage of a household's income that is used to pay its energy bills, including electric, gas, and any other heating fuels. According to the US Department of Housing and Urban Development **an affordable energy burden is considered to be no more than 6% of household income**. As an example, a household with $50,000 in income should spend no more than $3,000 on their energy bills.

- Arizona has the #39 highest average energy burden in the US
- **16% of households in Arizona (425,166 households) have an unaffordable energy burden** (20.21% of households nationally have unaffordable utility bills)
- Each year, the average household (with unaffordable utility bills) in **Arizona spends $811 more in utility bills than they can afford** (above the 6% affordability standard) - compared to the national average of $921.06
- The map on the right displays the 75th percentile energy burdens in each census tract. This means at least 25% of households in that tract are at or above the tract energy burden score.

Note: cities have large populations and household counts, their census tracts are typically smaller, and therefore cities appear as smaller pockets in this map.

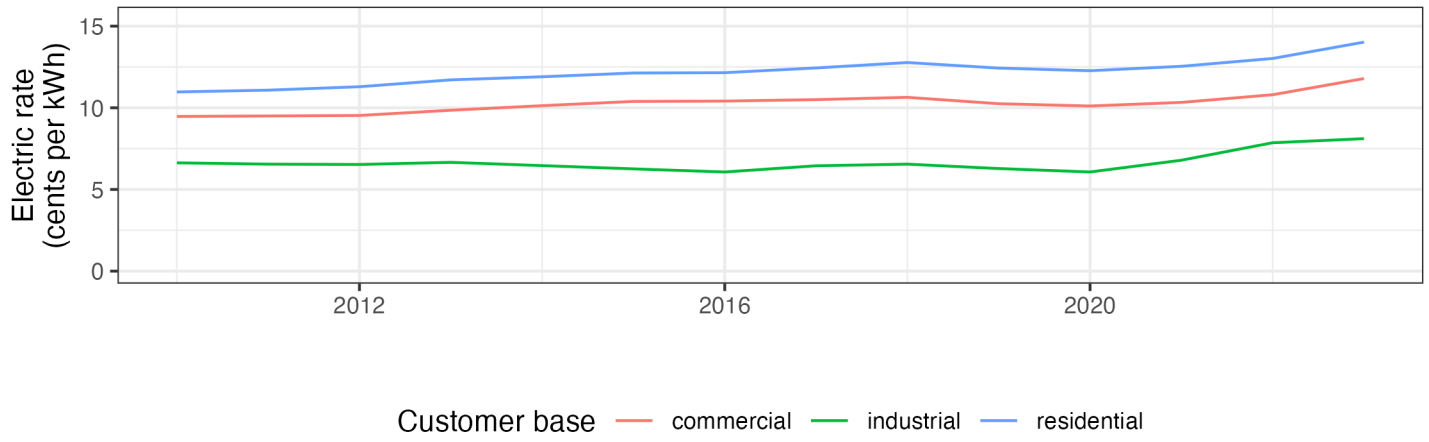


Based on Department of Energy Low-income Energy Affordability Tool 2022 data.

Where are severe energy burdens concentrated in your state?

Energy Rates

Utilities categorize customers into three different groups: residential, commercial, and industrial. Each has its own energy rate. Typically, residential customers are subject to the highest rates while commercial and industrial customers have enjoyed lower rates. The graph below shows the average electric rates (cents per kWh) experienced by Arizona customers. Note the change over time.



EIA form 861, Annual Sales (consumption), revenue, prices & customers, for total electric industry, averaged across all reporting utilities, from 2010 to 2023

The table below outlines the rate changes from 2010 to 2023 in cents per kWh.

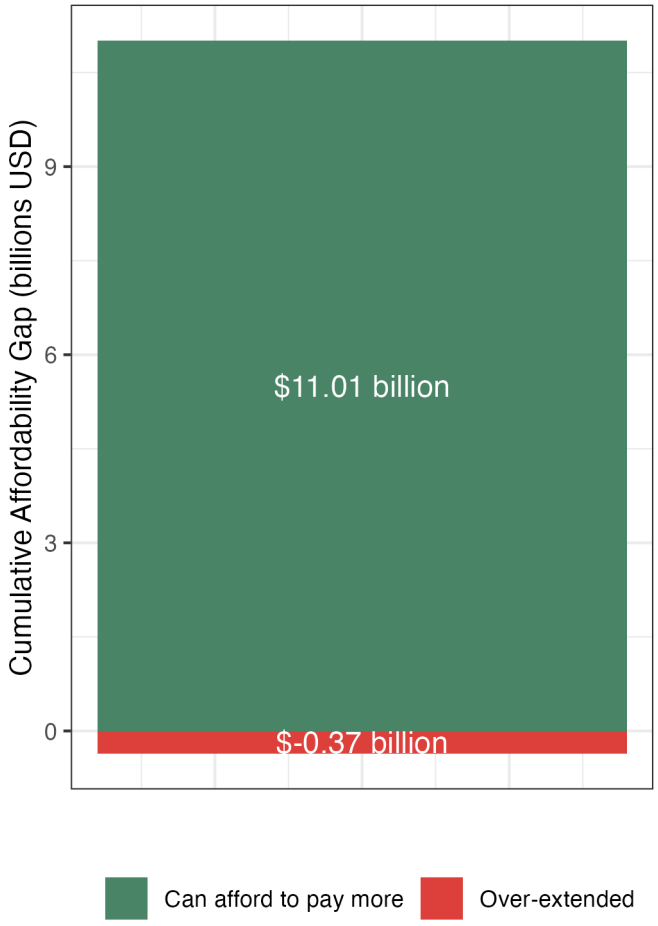
What is the justification for disparities between residential, commercial, and industrial rates?

	Avg Electric Rate (2010)	Avg Electric Rate (2023)	Percent difference in rates (%)
Residential	11	14	27.8
Commercial	9.5	11.8	24.5
Industrial	6.6	8.1	22.3

EIA form 861 Annual Sales (consumption), revenue, prices & customers, for total electric industry, averaged across all reporting utilities, from 2010 to 2023

Disparities in different rate classes exacerbate residential unaffordability.

Pathways to Universal Affordability



Based on Department of Energy Low-income Energy Affordability Tool 2022 data.

The Affordability Gap: The difference between a household's actual utility bills, and what is considered an affordable utility bill (at 6% energy burden).

2,313,882 of Arizona households with affordable energy burdens (below 6%) could spend an additional $11.01 billion on energy bills before exceeding the affordability standard.

425,166 of Arizona households with unaffordable energy burdens (above 6%) need energy bill reductions of $0.37 billion in order to meet the 6% affordability standard.

Pathway 1: Allocate among residents

The *Affordability Gap* could be passed on to households with cheap/affordable bills. These households can afford to pay $11.01 billion more towards their utility bills. **Just 3.32% of this surplus would pay for all households' excess utility bills.**

Pathway 2: Pursue equitable commercial and industrial rates

The *Affordability Gap* could be passed on to Commercial and Industrial (C&I) customers. C&I customers consumed 65 million mWh in 2023. **Solving the *Affordability Gap* issue in Arizona through C&I customers would require a 1 cent per kWh increase in their electric rates.** Even with this rate increase on C&I customers exclusivley, C&I rates would still be cheaper than residential rates.

Pathway 3: Reduce other costs

Investor-owned utilities are regulated monopolies. They are guaranteed a return on equity (ROE) on capital expenditures, like building more power generation plants or transmission lines. The ROE utilities are guaranteed, is set by the state's Public Utilities Commission. For context **"just a 1 percent reduction in ROE can save customers nearly $4 billion nationwide each year" (RMI).** Utilities also spend tens of millions collecting fees, issuing shutoff notices, disconnecting and reconnecting service, and on other non-essentials, like marketing natural gas. Reductions in these non-essential spending could be diverted to affordability programs.

What pathway or combination of pathways would be most likely to succeed in your state?

Shutoffs

In today's day and age, energy is a basic necessity for human life. We need it to keep our homes at safe temperatures, refrigerate food and medicines, run air filters and at-home medical equipment, and power electronics for work, school, and communicating with our communities. According to the World Health Organization, access to energy is a "prerequisite for good health" (2006). A study by Hernandez and Laird, 2021 showed that households facing the threat of energy shutoffs or experiencing a shutoff forgo necessities, maintain unhealthy temperatures, and/or seek energy assistance. Energy insecurity has devastating impacts to all households, but it disproportionately burdens the most vulnerable and historically marginalized. In fact, according to the same study by Hernandez and Laird, households with children are the most affected by shutoffs and shutoff notices. See EEP's national primer on shutoffs for more info.

The impacts of disconnections on living conditions, physical and mental health, and communities as a whole are devastating. Despite these impacts, thousands of households across the country face shutoffs every year. Since 2020, there have been more than 5 million known energy shutoffs because people are too poor to pay their bills.

Shutoffs in Arizona

The analysis in this section is based on the data provided by the Energy Justice Lab's (Indiana University) Utility Disconnection Dashboard

- 2022 is the most recent year we have disconnection data from Arizona.
- Arizona's average disconnection rate ranks #18 out of 38 states who reported disconnections for 2022
- Arizona disconnected 16,982 homes in 2022
- IOU customers in Arizona are 3.60% more likely to get disconnected compared to the US as a whole.

Note: *Not all utilities operating in a state report their disconnections to their Public Service/Utility Commission. Therefore,* ***all these statistics are underestimates of the true number of disconnections happening across the US.***

Utility Type	Number of Operating Utilities	Number of Utilities Reporting Disconnections
Investor Owned	5	2
Cooperative	7	1
Municipal	1	0

A NOTE ON SHUTOFF DATA: *Reporting is most commonly done monthly, system-wide. Highest quality reporting (rare) is by zip code or census tract, and includes data on past due balances, payment plans, late and reconnection fees, and participation in affordability and energy efficiency programs. This level of transparency is crucial for investigating disparities and fighting to end shutoffs.*

Takeaways

- If you are having trouble paying your energy bill, you are not alone. While utilities across the country rake in record profits, 16% of people in Arizona have more than a 6% energy burden and every month, about 1/3 of Americans can't pay their bill in full.
- Despite widespread unaffordability, utility rates consistently increase year after year.
- In the face of rising rates, many households face the threat of shutoffs and find themselves having to make the impossible decision to forgo necessities to stay connected to the energy they need.
- It doesn't have to be this way. Our current system where monopoly utilities are regulated by state agencies that more often than not act to serve the utility first is just one possible way to deliver life-sustaining energy to our households. Organizations across the country are fighting for alternatives like community solar and public ownership.

Resources

State Utility Commissions:

- Compare Power's list of Public Utility Commissions in each state

Affordability programs:

- NEUAC's State Resource Directory
- USA.gov's utility assistance programs

Datasets:

- Utility Disconnections Database
- DOE Low-Income Energy Affordability (LEAD) Tool (archived)

Connect with us

To learn more about the energy landscape in your state please:

- Head to the Energy Equity Project website: **energyequityproject.org**
- Reach out to the Energy Equity Project email: **energyequityproject@umich.edu** - we may be able to connect you with organizations in your area working for change.
- Follow EEP on bluesky: **@energyequityproject.bsky.social**