



RATE DESIGN CONVERSATION ***◦ BENCHMARKING TX UTILITIES ◦***

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Informational Update

AGENDA



- **SUMMARY OBSERVATIONS**
- **CPS ENERGY'S RATES & PROGRAMS**
- **DASHBOARD OF TEXAS UTILITIES**
- **APPENDIX**
 - **1-PAGE UTILITY SUMMARIES**
 - **AUSTIN ENERGY**
 - **PEDERNALES**
 - **GVEC**
 - **NEW BRAUNFELS**
 - **MEDINA ELECTRIC CO-OP**
 - **EL PASO ELECTRIC**
 - **SAWS RATE DESIGN EFFORT**

RATE DESIGN OBJECTIVES

Cost Recovery



- Funding (rate increase)
- Segmentation & growth
- Fixed vs. variable costs

Affordability



- Energy burden
- Assistance programs & eligibility
- Other discounts

Conservation



- Price signals
- Volume pricing (tiered rates, pricing for high usage users)
- Time of Use (TOU) rates

Innovation



- Rates to enable new technology
- Access to renewable energy (solar DG, green tariff)
- Electric vehicle rates

We benchmarked Texas utilities through the lens of these important rate design topics.

Cost Recovery



- Most public utilities have sought rate adjustments to increase funding due to growth, inflation or other cost increases
- Several utilities are adjusting fixed charges on the bill to improve fixed cost recovery
- Some utilities are re-balancing cost recovery between customer segments
- Fuel adjustments all increased last year to reflect the higher natural gas costs

Affordability



- Most utilities offer discounts and/or payment assistance to customers in need
- Discounts tend to be flat monthly or yearly discounts
- Eligibility is typically based on income relative to federal poverty level
- Funded by donations or through base rates (i.e., built into other customers' bills)

Conservation



- Many utilities utilize conservation programs (like STEP) to offer demand response & peak load shaving incentives
- Few utilities use volumetric pricing (i.e., tiers) to incentivize conservation
- Utilities appear to be evaluating the use of time-based rates to drive conservation
 - Optional for residential customers
 - Some utilities have mandatory TOU rates for large commercial

Innovation



- Utilities are trying to meet needs by testing into new rate structures
- Electric Vehicle rates to enable growth and adoption
- Renewable rates to enable flexible customer-owned generation while improving cost recovery

Utilities are still taking strides toward conservation & innovation, but the main focus has been on affordability since the pandemic, inflation, & high natural gas costs have been impacting customers.

CPS ENERGY RATES OVERVIEW



Cost Recovery

- Implemented rate increase on March 1, 2022
- Fixed cost still recovered mostly through variable charges
- Commercial rates contribute more than their cost to serve (new COS completed in 2022)

Affordability

- Qualify by income, age or other circumstances
- Participation: ~64K electric and ~36K gas customers
- Annual funding of ~\$12M/year
- discount of ~\$16/mo
- Many other programs (including REAP)

Conservation

- Prefer to use seasonal rates over year round tiers
 - Peak capacity charge
 - Seasonal demand charges
- Sustainable Tomorrow Energy Plan (STEP) includes demand response programs for residential & commercial customers

Innovation

- TOU rate for commercial customers
- Piloting several electric vehicle rates
- Updated wheeling rate in 2021 to enable battery storage
- Resiliency rate offered to expand generation resources & improve reliability

TEXAS UTILITIES DASHBOARD

RATE DESIGN DASHBOARD -MUNICIPALLY OWNED UTILITIES & COOPERATIVES IN TX-



	CPS Energy	Pedernales Electric Cooperative	Austin Energy	Medina Electric Cooperative	Guadalupe Valley Electric Cooperative	New Braunfels Utilities	El Paso Electric ³
	CPSE	PEC	AE	MEC	GVEC	NBU	EPE
Avg Residential Price¹	~13.2¢/kWh	~12.5¢/kWh	~12.9¢/kWh	~13.3¢/kWh	~13.4¢/kWh	~14.6¢/kWh	~15.5¢/kWh
Avg Commercial Price¹	~10.7¢/kWh	See note 2 below	~10.5¢/kWh	~9.4¢/kWh	~6.4-9.4¢/kWh	~9.5¢/kWh	~11.8¢/kWh
Rate Structure/ Cost Recovery	<ul style="list-style-type: none"> Low monthly fixed charge with higher variable charge Demand charges on Commercial rates 1 seasonal volumetric tier (summer peak capacity charge) Fuel adjustment changes monthly 	<ul style="list-style-type: none"> High monthly fixed charge with lower variable charge Demand charges on Commercial rates Mandatory TOU rate for Large Commercial No seasonal or tiered charges Fuel adjustment changes as needed 	<ul style="list-style-type: none"> Increasing monthly fixed charge & reducing # of tiers for variable charge 4 volumetric tiered charges Demand charges on Commercial rates No seasonal charges Fuel adjustment changes annually 	<ul style="list-style-type: none"> High monthly fixed charge with lower variable charge Demand charge for Residential >15kVA No seasonal or tiered charges Demand charges on Commercial rates Fuel adjustment changes monthly 	<ul style="list-style-type: none"> High monthly fixed charge with lower variable charge No seasonal or tiered charges Demand charges on Commercial rates Fuel adjustment changes as needed 	<ul style="list-style-type: none"> High monthly fixed charge with higher variable charge Seasonal energy charges, no tiered charges Demand charges on Commercial rates Fuel adjustment changes monthly 	<ul style="list-style-type: none"> Low monthly fixed charge with higher variable charge Demand charges on Commercial rates 1 seasonal volumetric tier (summer peak capacity charge) Mandatory TOU rate for Large Commercial Fuel adjustment changes every 4-6 months
Affordability	<ul style="list-style-type: none"> Affordability Discount Program (ADP) = ~\$12M annual funding provides ~\$140 annual discount REAP = ~\$1M funding (+more from City/County) up to \$400 in assistance 	Member Assistance Program = Bill assistance of up to \$300 per yr & funded by donations.	Customer Assistance Program (CAP) = Discount to standard residential rate - waives fixed charge and provides 10% off kWh charges ~\$312. Funded by all customers not participating in the program.	No program, they refer their customers to local & state assistance.	Bill assistance provided to customers based on level of need. Funded completely by donations.	Discount to standard residential rate provides annual discount of ~\$36 on whole utility bill (electric, water, & sewer). Funded completely by donations.	<ul style="list-style-type: none"> Low Income Rider = exempt from customer charge, provides ~\$111 annual discount Bright Hearts Fund = ~\$240K funding (half funded by utility, half by donations) roughly \$267 in assistance
Conservation	<ul style="list-style-type: none"> Optional TOU rates Seasonal rates & tiers (peak capacity charge & seasonal demand charges) \$70M Conservation Program (STEP) 	<ul style="list-style-type: none"> Optional TOU rate program for Residential & Small Commercial Mandatory TOU pricing for Large Commercial No conservation program 	<ul style="list-style-type: none"> Optional Residential TOU pilot Commercial load shifting discount ~\$19M Conservation Program 	<ul style="list-style-type: none"> Offer rebates for energy efficient products or programmable thermostat Load management program for irrigation systems 	<ul style="list-style-type: none"> Optional Residential TOU rate Rebate for energy efficient AC/heating system 	<ul style="list-style-type: none"> Seasonal rates No conservation program or TOU rates 	<ul style="list-style-type: none"> TOU Rate for Res & Cmd Large commercial mandatory TOU rate Seasonal rates & tiers \$5.2M Conservation Program
Innovation	<ul style="list-style-type: none"> EV pilots for residential & commercial Windtricity (optional renewable adder) Green tariff for large commercial Resiliency for commercial Wheeling for commercial 	<ul style="list-style-type: none"> Community Solar rate for residential & commercial Renewable energy rider for residential & commercial 	<ul style="list-style-type: none"> Optional Residential EV rate pilots Green Power opportunities for residential & commercial Solar Rates for residential & commercial 	<ul style="list-style-type: none"> Distributed generation - includes solar & wind for residential & commercial 	<ul style="list-style-type: none"> SunHub - community solar for residential & commercial 	<ul style="list-style-type: none"> Solar Energy rebates for residential & commercial Net metering rates for solar & wind for residential & small commercial 	<ul style="list-style-type: none"> Community Solar rate for residential & commercial EV rates available to all customers
Recent History	<ul style="list-style-type: none"> Implemented ~\$3.84/month residential rate increase March 1, 2022 (bi-annual rate increases planned for the future) Focused on emphasizing near-term investments & creating immediate financial stability No structural changes made to rates 	<ul style="list-style-type: none"> Current rates effective Jan 1, 2023, adjustments made to move toward cost based rate structure & minimize subsidization across classes Large Commercial Rate was modified from a standard rate to a mandated TOU rate No changes were made to the Residential rate 	<ul style="list-style-type: none"> Implementing ~\$9/month residential rate increase in March 2023, re-evaluating tiered pricing and seeking to increase fixed cost recovery 	<ul style="list-style-type: none"> New rates went into effect Jan 1, 2021 to improve fixed cost recovery & align rates with the cost of service study completed in 2018 Impacted ~4,500 customers who use less than 50 kWh/month 	<ul style="list-style-type: none"> Last full rate case was 2016 Strategy to offer TOU rates to encourage customers to conserve & adopt distributed energy resources No announcement for a rate increase, but stated in Jan 2023 they'll be making large investments in their infrastructure to maintain reliability 	<ul style="list-style-type: none"> 3-yr rate plan FY2021-FY2023 increasing rates by 0%, 5%, & 10% in each respective year Includes increases to customer & delivery charges only 	<ul style="list-style-type: none"> Implemented rate increase effective July 2022 (~\$2.20 summer residential bill impact, ~\$1.41 winter residential bill impact) No rate structure changes, their standard residential rate structure is very similar to ours

Notes:

1. Residential & Commercial prices were calculated at standard usage levels (1,000 kWh for Residential & ~127MWh & 309kW for Commercial).
2. We are currently building out load profiles to be able to calculate more intricate TOU rates & will have them ready to share by next RAC meeting.
3. El Paso Electric is an investor owned utility, but they are still a good comparison for this discussion

RESIDENTIAL RATE DESIGN



	CPSE	PEC	AE	MEC	GVEC	NBU	EPE
Customer Charge ≥\$15		✓	✓ ¹	✓	✓	✓	
Moving Toward Cost-Based Rates	✓	✓	✓			✓	
Monthly Fuel Adj	✓			✓		✓	
Affordability/Assistance Program	✓	✓	✓		✓	✓	✓
Seasonal Pricing	✓					✓	✓
Inclining Blocks	✓ ²		✓				✓ ²
TOU Rates	✓	✓	✓		✓		✓
EV Rates	✓		✓				✓
Solar Rates	✓	✓	✓	✓	✓	✓	✓
Other Innovative Rates	✓	✓	✓				
~Bill @ 1,000 kWh	\$132	\$125	\$129	\$133	\$134	\$146	\$155

1. Austin Energy approved a 3 part rate increase to get the Residential customer charge to \$15 by Nov 2024. It is currently at \$13.
 2. Inclining blocks in the summer only

APPENDIX

1-PAGERS

Residential Rate Structure

- \$9.10 customer charge & per kWh charges
- Seasonal energy charge with 2 tiers in the summer
- Fuel adjustment updated monthly

Effective Price @1,000 kWh: ~13.2¢/kWh

Commercial Rate Structure

- 4 main commercial rates
- Seasonal demand (when applicable) & energy charges
- Small commercial rate: comprised of a customer charge & inclining tiered per kWh charges
- Large commercial rate: comprised of a customer charge, demand charge, & declining tiered per kWh charges
- Fuel adjustment updated monthly

Effective Price @ ~127MWh & 309kW: ~10.7¢/kWh

Affordability Program

- Eligibility: household income ≤125% of the Federal Poverty Level
- Discount: \$11.67 on monthly electric bills & \$4.47 on monthly gas bills
- Funding: funded by all customers through base rates

Assistance Programs

- Payment plans (5 different plans catered to customers based on their situation & level of need)
- Residential Energy Assistance Partnership
- Senior Citizen Billing Program
- Senior Citizen Late Fee Waiver
- Disabled Citizens Billing Program
- Burned Veteran’s Discount
- Weatherization

Source: <https://www.cpsenergy.com/content/corporate/en/about-us/who-we-are/rates.html>

Recent Rate Increase

- Current rates went into effect Mar 1, 2022 adding ~\$3.84 to an average residential electric & gas bill
- Focused on emphasizing near-term investments & creating immediate financial stability
- No structural changes were made to rates under the condition that rate design would be addressed via the Rate Advisory Committee
- Effective Mar 1, 2022 fuel adjustment includes recovery for winter storm Uri costs, adding ~\$1.26 to residential electric & gas bills

TOU/Innovative Products

- TOU: Optional Commercial & Residential TOU rates
- Innovation: EV pilots, Windtricity, Green Tariff, Resiliency, Wheeling



Pedernales Electric Cooperative (PEC)

Residential Rate Structure

- \$22.50 customer charge & per kWh charges
- No seasonal or tiered charges
- Fuel adjustment updated as needed

Effective Price @1,000 kWh: ~12.5¢/kWh

Commercial Rate Structure

- 2 Commercial rates: Small & Large
- Small commercial rate: comprised of a customer charge & per kWh charges
- Large commercial rate: mandatory TOU rate that includes time based demand & energy charges
- Fuel adjustment updated as needed

Effective Price @ ~127MWh & 309kW: N/A

Affordability Program

- Eligibility: household income <200% of the Federal Poverty Level
- Discount: flat discount up to \$300/yr
- Funding: funded by donations (similar to our REAP program)

Assistance Programs

- Veterans' Burn Assistance Program
- Building Assistance Program – Assistance for recipient participating with a Building Assistance Charitable Organization

TOU/Innovative Products

- TOU: optional Residential program, mandatory Commercial rate
- Innovation: community solar, renewable energy rider

Recent Rate Increase

- Current rates effective Jan 1, 2023, adjustments made were cost neutral to most customers
- Adjustments made to move toward cost based rate structure & minimize subsidization across classes
- Customers with monthly demand ≥50 kW placed onto the large commercial rate (previously the threshold was 75 kW)
- Large Commercial Rate was modified from a standard rate to a mandated TOU rate & includes time based charges for both demand & energy components of the bill
- No changes were made to the Residential rate

Source: <https://www.pec.coop/your-service/rates-pricing/>



Austin Energy (AE)

Residential Rate Structure

- \$15 customer charge & per kWh charges
- Tiered energy charge with 4 tiers, highest price for usage >2,000 kWh
- Annual fuel adjustment

Effective Price @1,000 kWh: ~12.9¢/kWh

Commercial Rate Structure

- 3 main commercial rates: Small, Medium, & Large
- Rate comprised of a fixed customer charge, demand charge (with the exception of small commercial), & energy charge
- Small commercial rate does not include a demand charge
- Annual fuel adjustment

Effective Price @ ~127MWh & 309kW: ~10.5¢/kWh

Affordability Program

- Eligibility: household income <200% of the Federal Poverty Level
- Discount: exempt from monthly customer charge & charge recovering the program as well as a 10% discount on all kWh-based charges. ~\$26 discount on average residential bills (at 860kWh).
- Funding: recovered by all non-affordability customers

Assistance Programs

- Bill Payment Assistance
- Free Weatherization Assistance

TOU/Innovative Products

- TOU: Residential TOU pilot, Commercial discount for shifting ≥30% on-peak load
- Innovation: Residential EV pilot, Green Power (like Windtricity), solar rates

Recent Rate Increase (effective Mar 2023)

- 5% increase, ~\$8.87 residential bill impact
- Moving toward cost based rate structure
 - Improve fixed cost recovery
 - Reduce residential energy charge tiers from 5 to 4
 - Remove adjustment for businesses with low load factors
- 3-part residential rate increase to slowly move the customer charge to \$15 by 2024
- Rate increase drivers:
 - Higher operating & maintenance costs
 - Continued growth – infrastructure additions/improvements
 - Lagging energy sales, compared to customer growth
 - Grid reliability

Source: <https://austinenergy.com/rates>

Medina Electric Cooperative (MEC)

Residential Rate Structure

- \$29 customer charge & per kWh charges
- Demand charge for demand >15kVA
- No seasonal or tiered charges
- Fuel adjustment updated monthly

Effective Price @1,000 kWh: ~13.3¢/kWh

Commercial Rate Structure

- 4 Commercial rates: Small, Large, & 2 Industrial rates
- Rates comprised of a fixed customer charge, demand charge, & energy charge
- Large commercial energy charge is declining tiered structure
- Industrial customers charged wholesale for the energy charge
- Fuel adjustment updated monthly

Effective Price @ ~127MWh & 309kW: ~9.4¢/kWh

Affordability Program

Medina electric does not have an affordability program. They refer their customers to local & state assistance.

Recent Rate Increase

- New rates went into effect Jan 1, 2021
- The only change was to establish a minimum bill of \$35 for all residential & small commercial customers to improve fixed cost recovery & align rates with the cost of service study completed in 2018
- Impacted ~4,500 customers who use less than 50 kWh/month
- The \$29 customer charge remained unchanged
 - This is relatively high for a residential rate when compared to peer utilities, but in line with the cost to serve

TOU/Innovative Products

- TOU: None
- Innovation: solar program

Residential Rate Structure

- \$25 customer charge & per kWh charges
- No seasonal or tiered charges
- Fuel adjustment updated as needed

Effective Price @1,000 kWh: ~13.4¢/kWh

Commercial Rate Structure

- 3 main commercial rates: Small, Medium, & Large
- Rate comprised of a fixed customer charge, demand charge, & energy charge
- Tiered demand charge
- Fuel adjustment updated as needed

Effective Price @ ~127MWh & 309kW: ~6.4-9.4¢/kWh

Affordability Program

- Eligibility: case by case basis
- Discount: varies by level of need
- Funding: funded by donations - customers on the POWERUP program have their bill rounded up to the nearest dollar, the excess charges is donated to the program fund

TOU/Innovative Products

- TOU: Residential TOU rate, replaces generation & transmission charge with a time based charge
- Innovation: community solar program

Recent Design

- Last full rate case was 2016
- Strategy to offer TOU rates to encourage customers to conserve & adopt distributed energy resources (solar, battery storage, EVs, etc.)
- There has been no announcement for a rate increase, but they stated in Jan 2023 that they will be making large investments in their electric infrastructure to maintain reliability & meet the demand of the growth in their market
- They also plan to bring their financial metrics back to “pre-Uri” standards



New Braunfels Utilities (NBU)

Residential Rate Structure

- \$17.06 customer charge & per kWh charges
- Seasonal energy charges
- Fuel adjustment updated monthly

Effective Price @1,000 kWh: ~14.6¢/kWh

Commercial Rate Structure

- 2 commercial rates: Small & Large
- No demand charges for small commercial customers
- Demand charges for all large commercial customers
- Seasonal energy charges
- Fuel adjustment updated monthly

Effective Price @ ~127MWh & 309kW: ~9.5¢/kWh

Affordability Program

- Eligibility: household income ≤125% of the Federal Poverty Level
- Discount: \$3 on whole utility bill (NBU includes Electric, Water, & Sewer on their bills)
- Funding: funded by donations

Assistance Programs

- Bill Payment Assistance

Recent Rate Increase

- 3-yr rate plan FY2021-FY2023 increasing rates by 0%, 5%, & 10% in each respective year
- Includes increases to customer & delivery charges only
- Funds capital improvements & growth
- Rate structure already designed to recover fixed costs

Rate Design with Rate Advisory Committee

- Addressing affordability
- Class subsidization
- Cost based rates
- Renewable products

TOU/Innovative Products

- No TOU rates
- Innovation: Renewable program (includes solar & wind)

Source: <https://www.nbutexas.com/electric-water-and-sewer-rates/>



El Paso Electric (EPE)

Residential Rate Structure

- \$9.25 customer charge & per kWh charges
- Seasonal energy charge with 2 tiers in the summer (similar to our peak capacity charge)
- “Phone bill” model with all charges broken out (energy efficiency, retiring plants, etc.)
- Fuel adjustment updated as needed (~every 4-6 months)

Effective Price @1,000 kWh: ~15.5¢/kWh

Commercial Rate Structure

- 3 main commercial rates: Small, Medium, & Large
- Rate comprised of a fixed customer charge, demand charge (with the exception of small commercial), & energy charge
- Small commercial rate does not include a demand charge
- Energy & Demand charges are seasonal
- Medium commercial rate includes declining energy charge tiers
- Large commercial energy charge is time based
- “Phone bill” model with all charges broken out (energy efficiency, retiring plants, etc.)
- Fuel adjustment updated as needed (~every 4-6 months)

Effective Price @ ~127MWh & 309kW: ~11.8¢/kWh

Affordability Program

- Eligibility: household income ≤125% of the Federal Poverty Level
- Discount: exempt from monthly customer charge (\$9.25)
- Funding: unclear how the program is funded

Assistance Programs

- Payment Arrangements
- Bright Hearts Fund (~\$267 annual assistance per customer)

TOU/Innovative Products

- TOU: Optional Residential TOU rates, large commercial mandatory TOU rate
- Innovation: Electric vehicle rate available to Residential & Commercial customers, community solar program

Recent Rate Increase

- \$13.5M rate increase effective July 2022 increasing average residential bills by \$2.20 in the summer & \$1.41 in the winter months
- Recovers investments made to the generation, transmission & distribution system since 2017
- No rate structure changes, their standard residential rate structure is very similar to ours

Source: <https://www.epelectric.com/customers/rates-and-regulations>

SAWS

SAWS RATE DESIGN EFFORT



- SAWS worked with their RAC Feb-Jun 2022 to address their current rate structure & develop a revenue neutral rate adjustment plan
- Their Cost of Service Study revealed they were over-recovering from Residential customers & under-recovering from commercial customers
- Their main focus for the rate adjustment plan was to improve residential affordability & utilize price signals to encourage conservation
- Key decisions made on rate design:
 1. Bring recovery in line with the Cost of Service by shifting recovery from Residential to Commercial
 2. Create a unique rate class for low income Residential customers
 3. Send price signals for conservation (beyond the cost of service)

SAWS RATE DESIGN EFFORT



WHAT IS A RATE STUDY?

SAWS completes a rate study about every five years. This utility industry best practice helps ensure water and wastewater rates are:

- Sufficient to recover operating costs.
- Enough to maintain and invest in infrastructure needed to provide water and sewer services.
- Based on the equitable allocation of those costs to each customer class (residential, commercial, etc.).
- A reflection of the values of the community served.

Rate studies review both the rate structure — how the services are billed — and the actual rates charged — the amount customers are billed. SAWS contracted with Carollo Engineers, Inc. to help conduct the 2022 rate study.



KEY FINDINGS:

- Affordability for all SAWS customers is the primary goal for use of a reasonable amount of water.
- The new structure incorporates additional pricing signals for discretionary outdoor water use, to further promote conservation.

RATE ADVISORY COMMITTEE PRIORITIES

1. Affordability
2. Minimize Customer Impacts
3. Conservation
4. Revenue Stability

100% of residential bills will reflect **reduced wastewater charges**.

98% of bills will be lower for SAWS Affordability Discount Program participants, including **33% to 57% savings** for essential water use.

83% of residential bills will include **reduced water charges** (for customers using 9,000 gallons or less).

20% reduction in fixed charges (meter charge, minimum wastewater charge, etc.) for most residential bills.

RESIDENTIAL CUSTOMERS

