

# Austin Energy 2022 Base Rate Review City Council Work Session

Austin Energy Executive Team



November 1, 2022

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# Base Rate Review Process

Tammy Cooper  
Senior Vice President  
Regulatory, Communications & Compliance





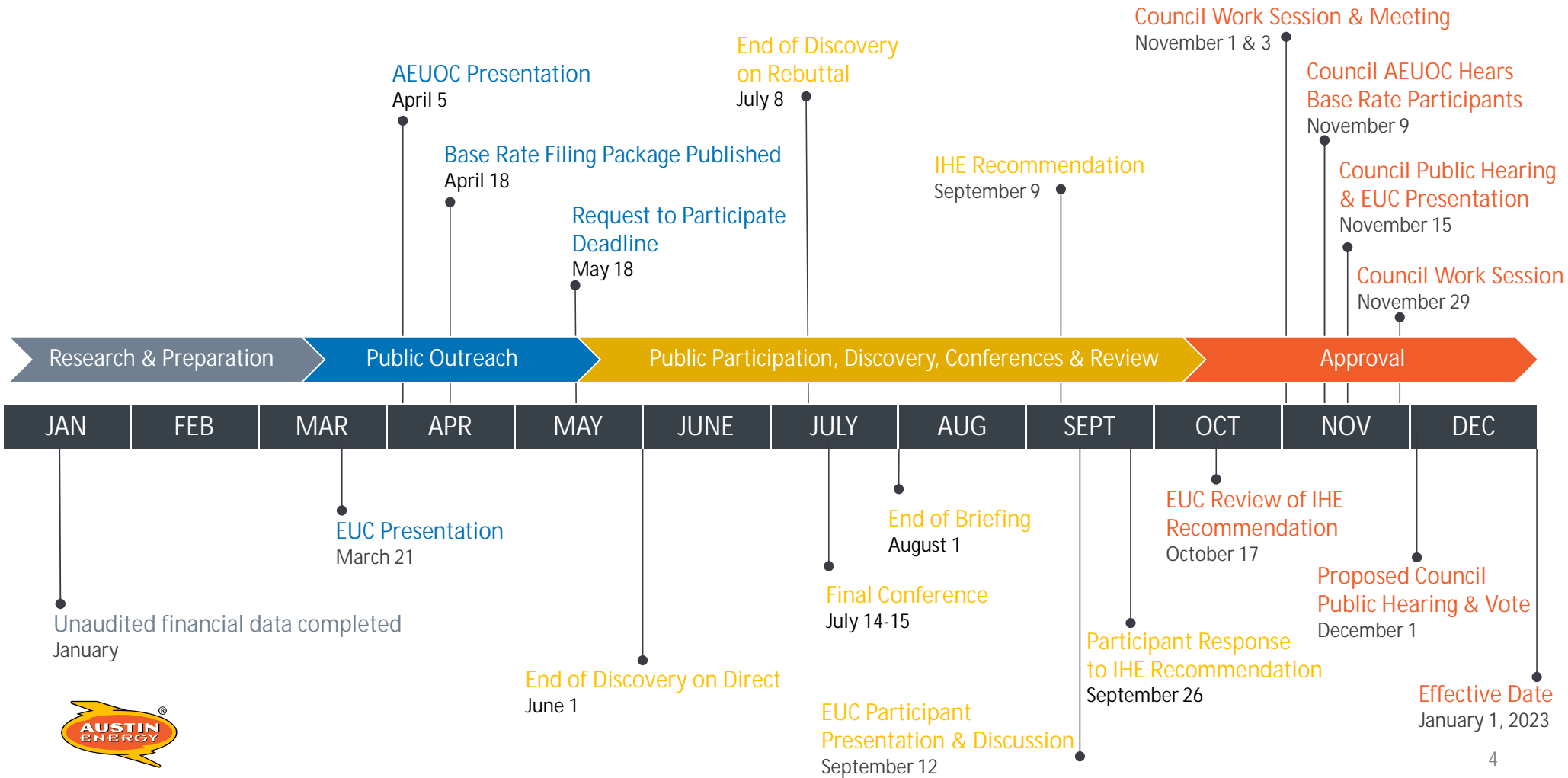
# Council-Established Process

ORDINANCE NO. 20120607-055

“The Council adopts as policy that Austin Energy's rates should be reviewed at least once every five years. The Council will establish a process for rate policy development and decision making that will ensure that all customer classes have an opportunity to participate and that their interests are considered. As part of this process, the City will hire a consumer advocate who is knowledgeable and experienced in ratemaking issues to represent residential and small business customers. The City may also hire an impartial hearing examiner to conduct the review and make recommendations.”



# Austin Energy 2022 Base Rate Review Timeline



# Base Rate Review Public Process

- Public Outreach and Participation
  - Multiple Community Outreach Meetings
  - Residential and Commercial Customers
  - 600+ Public Comments Submitted
- Discovery
  - Formal Participants Submitted Questions
  - Austin Energy Responded to More Than 500 Questions
- Formal Hearing Process
  - Included All Participants
  - Open to the Public

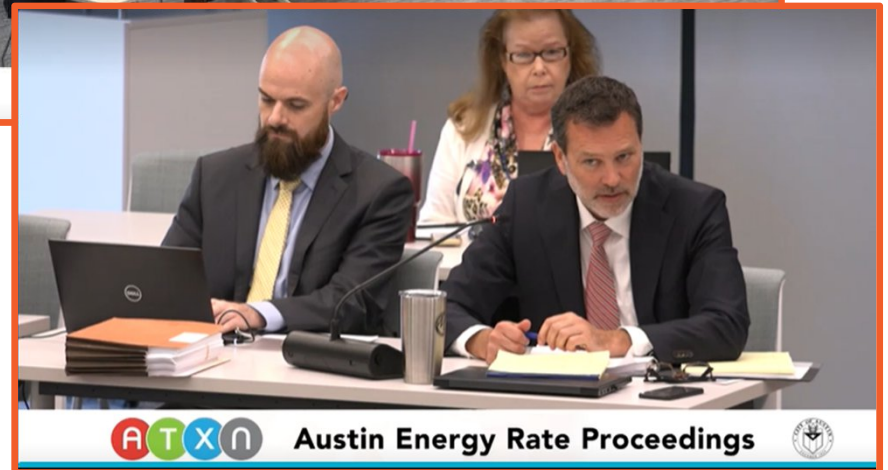


## Formal Participants:

- Independent Consumer Advocate (ICA)
- Sierra Club and Public Citizen
- Solar and Storage Coalition
- Solar United Neighbors
- 2WR
- Homeowners United for Rate Fairness
- Paul Robbins
- Victor Martinez, Austin Energy Customer
- Coalition for Clean Affordable and Reliable Energy (CCARE)
- Data Foundry, LLC
- Austin Regional Manufacturers Assn (ARMA)
- National Instruments
- Texas Industrial Energy Consumers (TIEC)
- NXP Semiconductor

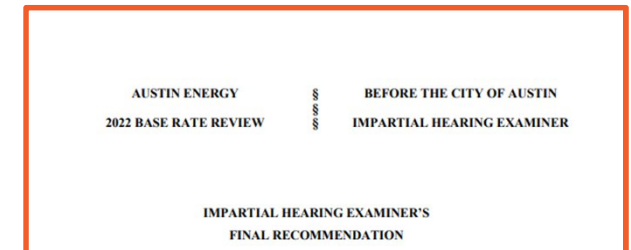
# Final Conference: Hearing on the Merits

- Led by Impartial Hearing Examiner
  - Expert in Utility Ratemaking
  - No Affiliation with Austin Energy nor Participants
- Held at AEHQ & Broadcast on ATXN
- Witness Questioning
- Post-Hearing Briefs Filed



# Impartial Hearing Examiner Recommendation

- Issued September 9
- 148 pages
- Detailed summary and analysis of Austin Energy's and all Participants' positions on more than 40 discrete issues
- Intended as a starting point for Council deliberations

The table of contents page, showing the title "AUSTIN ENERGY 2022 BASE RATE REVIEW" on the left and "BEFORE THE CITY OF AUSTIN IMPARTIAL HEARING EXAMINER" on the right. Below this, centered, is the text "IMPARTIAL HEARING EXAMINER'S FINAL RECOMMENDATION" and "TABLE OF CONTENTS".

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# Impartial Hearing Examiner Recommendation

- Agreed with Austin Energy on the majority of revenue requirement.
- Noted that the rate design changes Austin Energy seeks are well articulated and consistent with certain City and ratemaking policies and principles.
- Observed that Austin Energy proposes a reasonable, standardized approach that ultimately moves all customer classes closer to cost of service.
- Expressed concern about rate shock for some residential customers.



"One way or another Austin Energy must recover its revenue requirement through its rates."



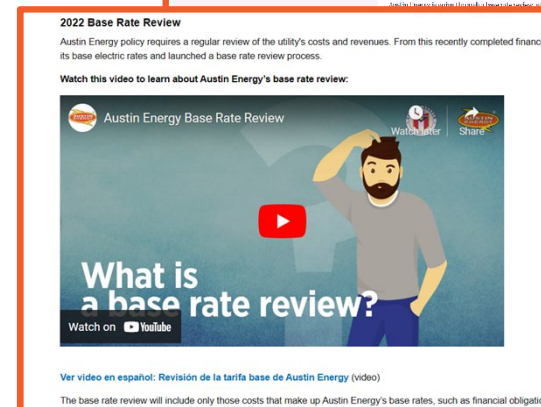
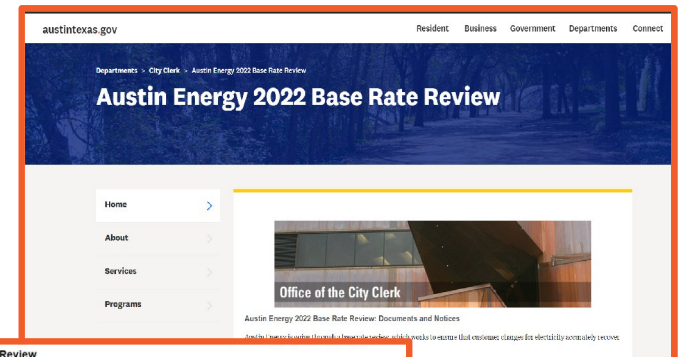
# Resources and Information

- All Base Rate Review Documents Are Filed on the City Clerk's Website:  
[austintexas.gov/cityclerk/postings/ae\\_2022\\_base\\_rate\\_review\\_documents\\_desc.htm](https://austintexas.gov/cityclerk/postings/ae_2022_base_rate_review_documents_desc.htm)

- Austin Energy Base Rate Filing Package
- Written Testimony
- Briefs
- IHE Recommendation

- Videos of Hearings Archived on ATXN

- Austin Energy's Base Rate Review Website  
[austinenergy.com/go/rates](https://austinenergy.com/go/rates)



# Austin Energy 2022 Base Rate Review

## Establishing Base Rates

Mark Dombroski  
Deputy General Manager  
Chief Financial & Administrative Officer





# Austin Energy's Requested Changes to Base Rates

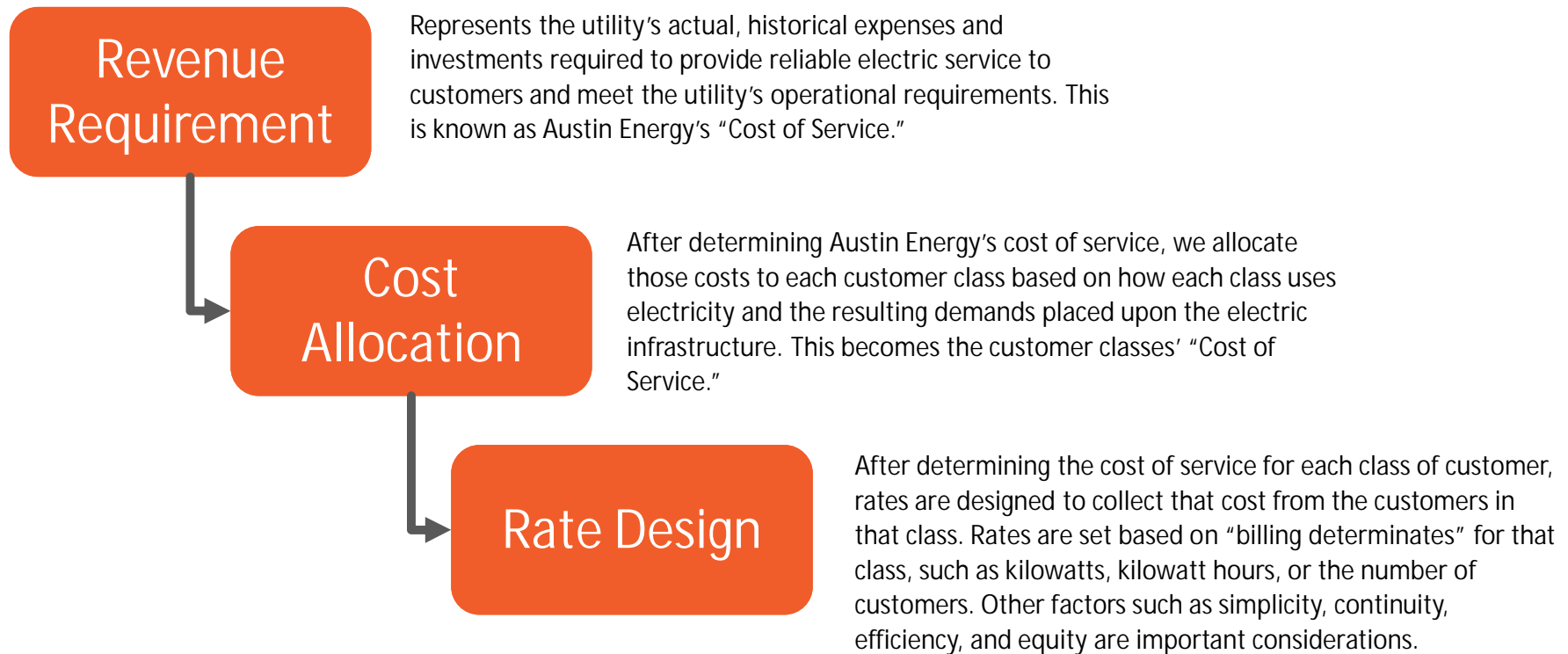
## Topline Challenges

1. Austin Energy needs an increase of \$35.7 million in revenue requirements
  - Recovers our actual cost to serve our customers
  - Improves financial stability
2. Residential base rate structure must change to reflect actual consumption patterns
  - Remedies the quandary of selling 77% of kWh below the actual cost of service
  - Recalibrates the tiers to reflect our actual customers' consumption patterns
3. Residential and commercial customers need to move closer to their cost of service
  - Provides more uniformity in future rate changes
  - Reduces subsidies between classes of customers



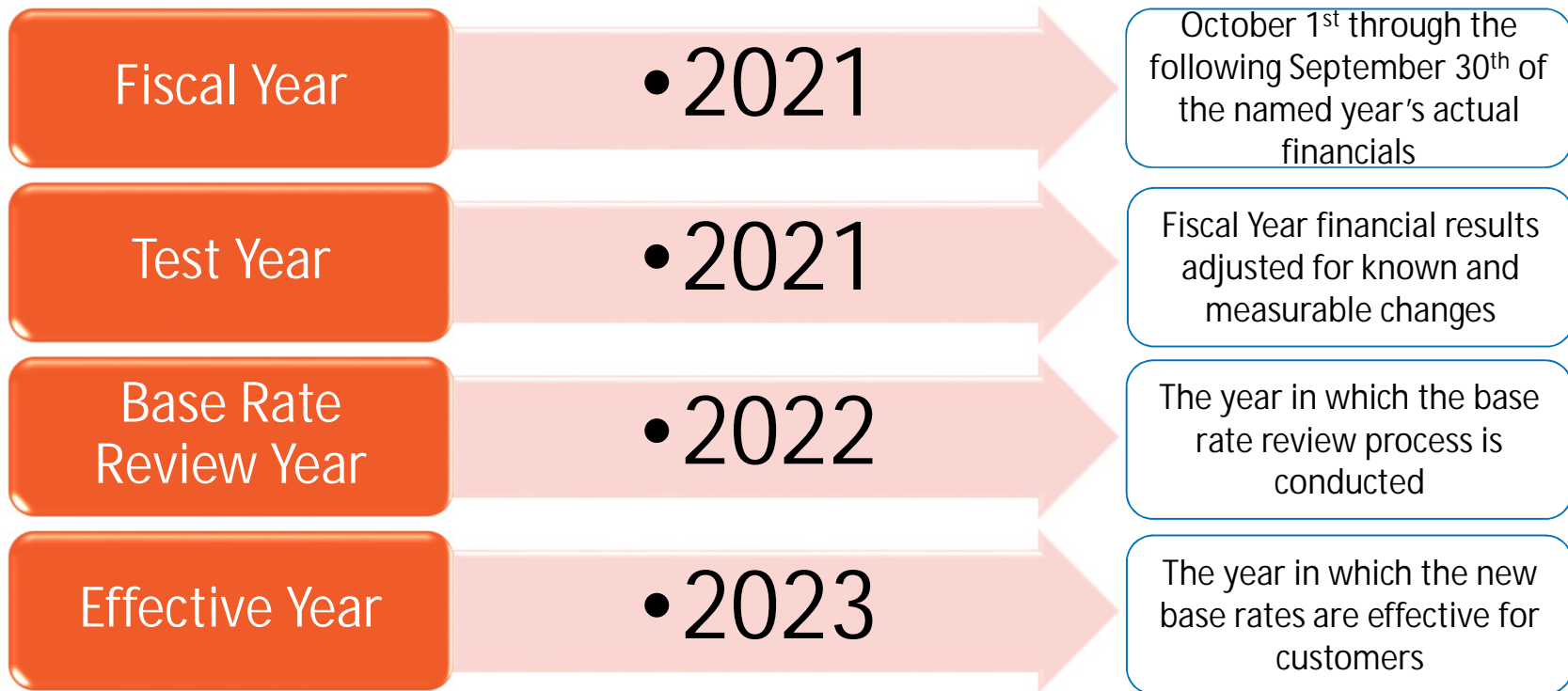
# Austin Energy 2022 Base Rate Review

## Steps for Establishing Base Rates



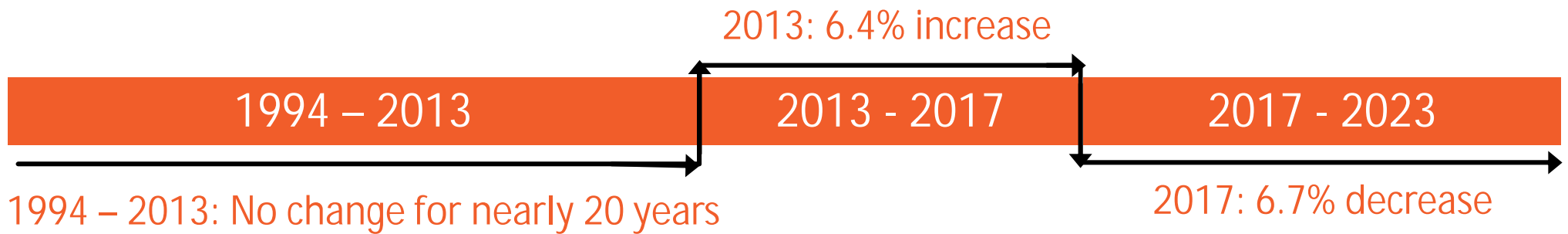
# Austin Energy 2022 Base Rate Review

## Understanding Naming Conventions Used in the Rate Review



# Austin Energy 2022 Base Rate Review

## Only Two Base Rate Changes Since 1994



Austin Energy's Proposed Base Rate Increase for 2023 is 5.6%



# Austin Energy 2022 Base Rate Review

Base Rates Are Used to Recover Fixed Costs – Not the Cost of the Electricity



Supplies & Equipment



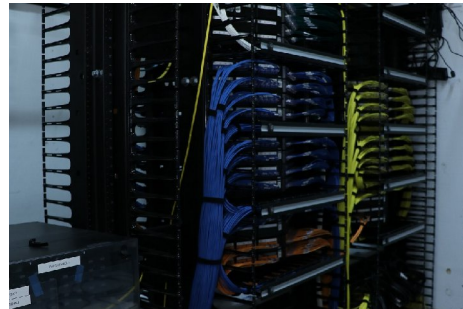
Tree Trimming



Principal + Interest Payments



Employees



Technology



General Fund Transfer

## Excluded:

- Power Supply Cost
- Customer Assistance Program
- Energy Efficiency Programs
- Streetlights
- Transmission-related Costs
- District Energy and Cooling



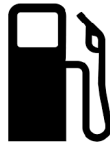
# Austin Energy 2022 Base Rate Review

When Consumers Use Less, They Can Reduce Their Variable Costs

Car Cost  
(Fixed)



Fuel Cost  
(Variable)



Efficiency or  
Conservation  
Measure

Take the bus to  
work and drive  
fewer miles

Impact

Same car cost but  
less fuel cost

Base Rate Cost  
(Fixed)



Power Supply Cost  
(Variable)



Efficiency or  
Conservation  
Measure

Adjust the  
thermostat to  
consume fewer  
kWh

Impact

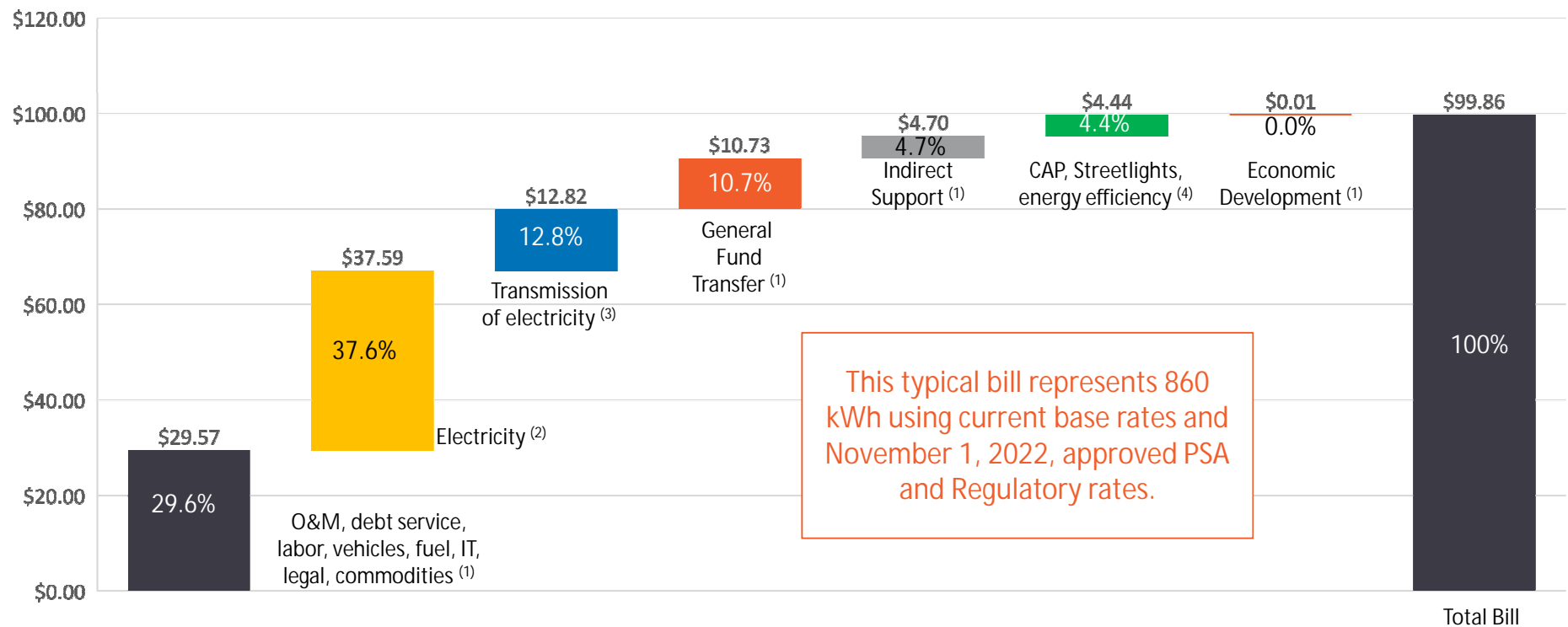
Same base rate  
cost but less  
power supply cost





# Austin Energy 2022 Base Rate Review

## Breakdown of Costs Recovered on a Typical Inside City of Austin Non-CAP Residential Monthly Bill Consuming 860 kWh



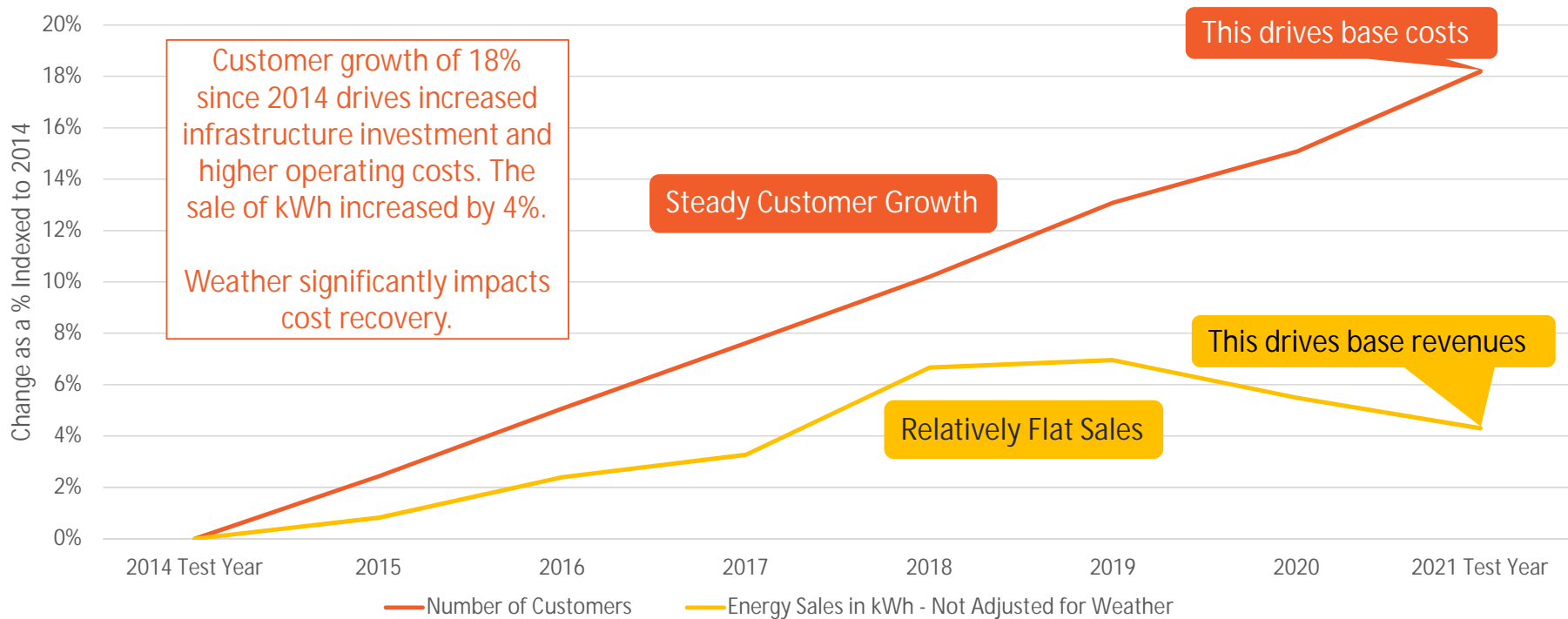
This typical bill represents 860 kWh using current base rates and November 1, 2022, approved PSA and Regulatory rates.



- (1) Customer Charge of \$10 and Energy Charge "Base Rates"
- (2) Power Supply Adjustment
- (3) Regulatory Charge
- (4) Community Benefits Charge

# Austin Energy 2022 Base Rate Review

## Recovering Fixed Costs at a Variable Energy Rate (kWh) is the Challenge



Source: Fund Summary Statements 2014-2021

# Austin Energy 2022 Base Rate Review

Austin Energy needs an increase of \$35.7 million in revenue requirements



# Austin Energy 2022 Base Rate Review

## It's Required: Master Bond Ordinance

Master Bond Ordinance states: "if net revenues are less than the aggregate amount specified, then rates, charges and fees must be revised and adjusted to comply with such rate covenant."

Net Revenues Components in Millions of \$	With Fund Balance GAAP Fiscal Year 2021	Without Fund Balance GAAP Fiscal Year 2021
Gross Revenues	\$1,276,554	\$1,276,554
Less:		
Operating Expenses	(980,277)	(980,277)
Subordinate Lien Obligations	(11,106)	(11,106)
Separate Lien Obligations	(146,025)	(146,025)
Fund Balance	➔ 383,843	
Other Financial Obligations to be Paid from Gross Revenues:		
General Fund Transfer	(114,000)	(114,000)
Cash for Construction	(143,083)	(143,083)
Economic Development Fund	(8,367)	(8,367)
<b>Net Revenues</b>	➔ <b>\$257,539</b>	<b>(\$126,304)</b>

Without the \$383.8 million in cash from the Fund Balance, Austin Energy would not comply with the Rate Covenant in the Master Ordinance. Without an improvement in Gross Revenues, accomplished with an increase in base rates, cash will continue to deplete, and Net Revenues will be insufficient.



# Austin Energy 2022 Base Rate Review

## It's Necessary: Financial Health

The financial health of Austin Energy has deteriorated and is no longer in compliance with its adopted financial policies. Benefits of policy compliance <sup>(1)</sup>:

- Institutionalize good financial management practices
- Clarify and crystallize strategic intent
- Define boundaries
- Support good bond ratings
- Promote long-term and strategic thinking
- Manage risks to financial condition

Metric	Target	4 <sup>th</sup> QTR 2019	4 <sup>th</sup> QTR 2020	4 <sup>th</sup> QTR 2021	4 <sup>th</sup> QTR 2022 <sup>(2)</sup>
Days Cash on Hand	> 150 Days	217 Days	224 Days	218 Days	118 Days
Debt Service Coverage	> 2.0	4.0	2.2	2.0	2.2
Operating Margin	> 10%	6.1%	-3.0%	-3.0%	2.0%
Debt to Capitalization	< 50%	51%	53%	54%	54%
Budget Excess (Deficiency)	> \$0	(\$31M)	(\$34M)	(\$129M)	(\$3M)

Current revenue does not cover current operating costs. As a result, Austin Energy is out of compliance with critical financial metrics. Slight improvement in Operating Margin and Budget (Deficiency) due to extremely hot weather in the summer of 2022.



(1) Government Finance Officers Association, Best Practices, Adopting Financial Policies

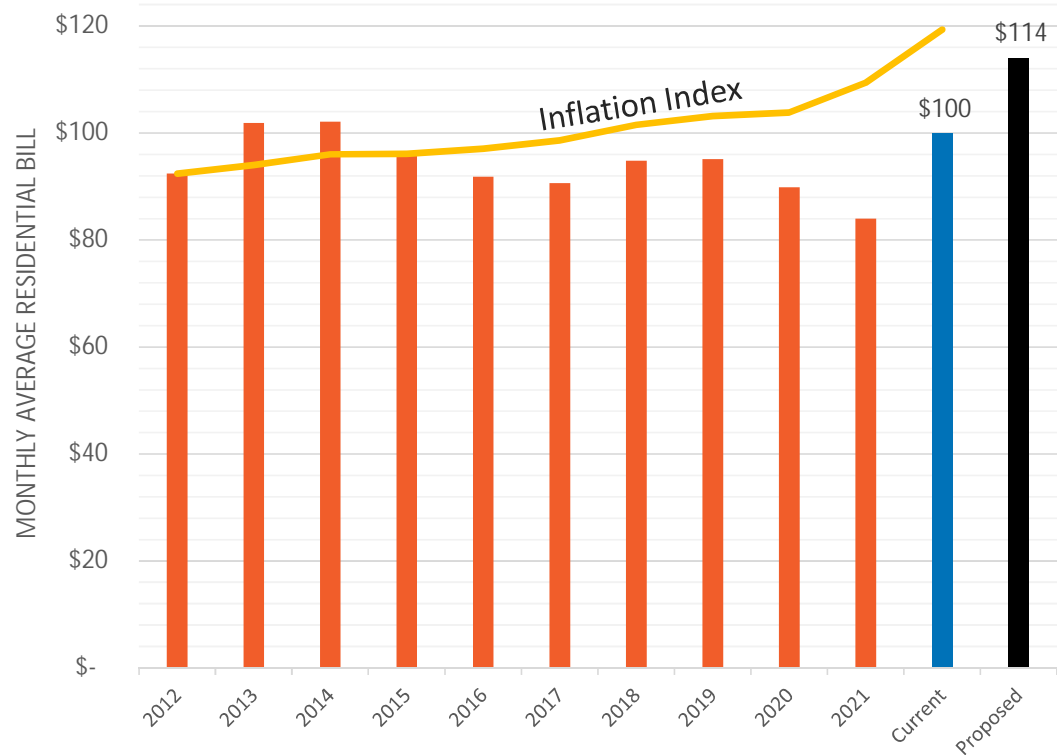
(2) 4<sup>th</sup> Quarter 2022 results are unaudited and subject to adjustment.

# Austin Energy 2022 Base Rate Review

## It's Reasonable: Bill Comparison Year-Over-Year Trends

Austin Energy's proposed rates produce reasonable bills that have increased less than inflation for our residential customers.

The following graph displays the historical trend of a typical Austin Energy residential customer bill since 2012 and an index relative to inflation<sup>(1)</sup>. This chart uses the actual average monthly bill to capture the benefit of customers' decreasing average consumption.



(1) Average bills 2012 – 2021 based on EIA data. 2022 bills based on 860 kWh average consumption and proposed rates with approved PSA rate for November 1, 2022.

# Austin Energy 2022 Base Rate Review

Residential base rate structure must change to reflect actual consumption patterns



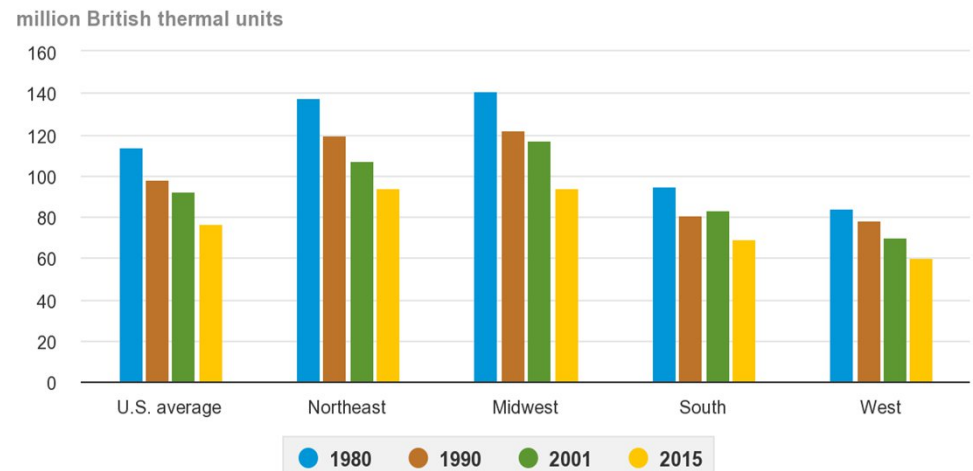
# Austin Energy 2022 Base Rate Review

## Energy Efficiency and Conservation are Driving Reduction in Electric Use

The typical U.S. household now uses more air conditioning, appliances, and consumer electronics than ever before. However, average annual site energy use per home has declined. The reasons for this decline include:

- Improvements in building insulation and materials
- Improved efficiencies of heating and cooling equipment, water heaters, refrigerators, lighting, and appliances
- Population migration to regions with lower heating—and thus lower total energy—demand

Energy consumption per household, U.S. average and by census region in selected years



Data source: U.S. Energy Information Administration, *Residential Energy Consumption Survey* for indicated years



Note: Excludes losses in electricity generation and delivery, and consumption of wood fuels.

The decline in average household site energy consumption has offset the increase in the number of homes overall, resulting in relatively flat residential sector energy consumption since the mid-1990s



<https://www.eia.gov/energyexplained/use-of-energy/homes.php>



# Austin Energy 2022 Base Rate Review

Trends in Residential Consumption: All Homes are Becoming More Energy Efficient  
Newer Homes are More Efficient, and Multi-Family Uses the Least

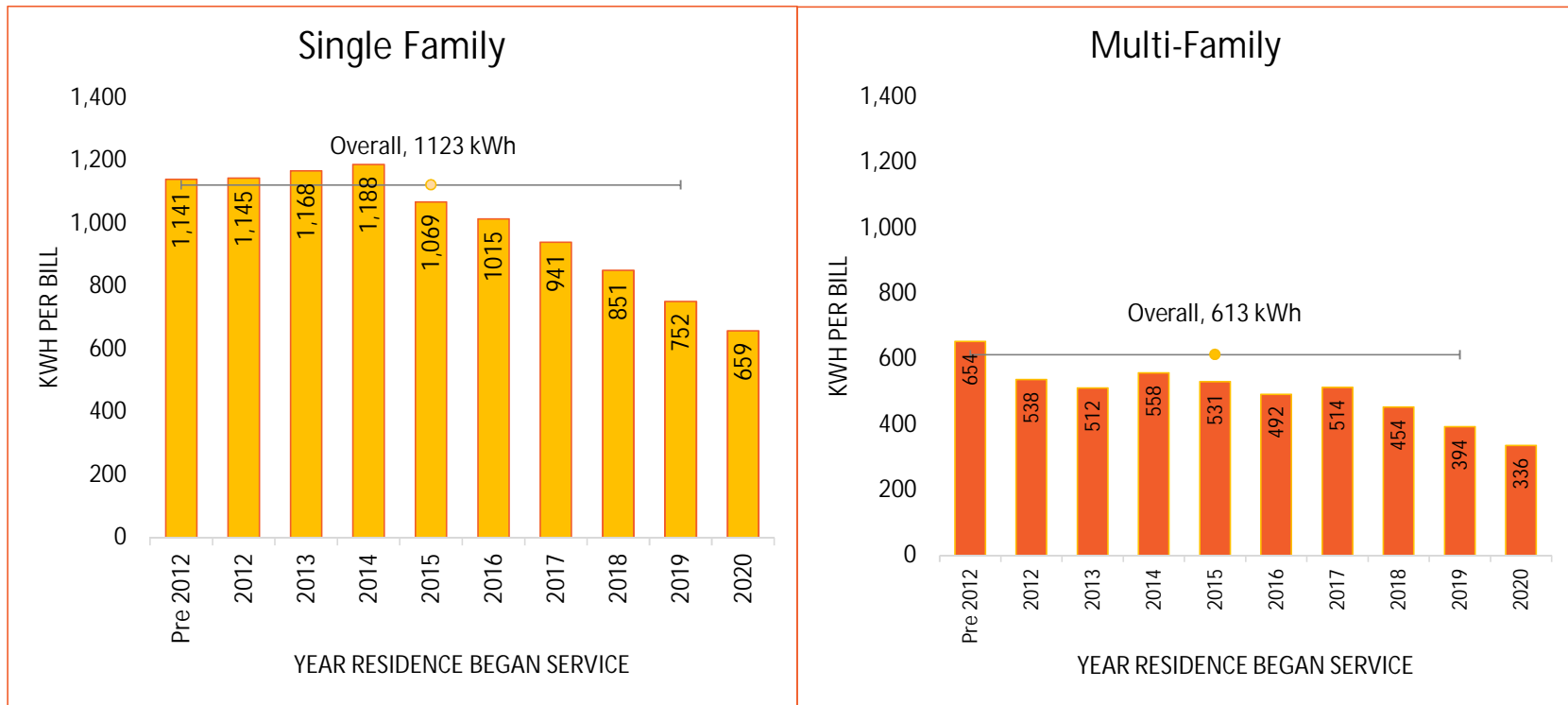
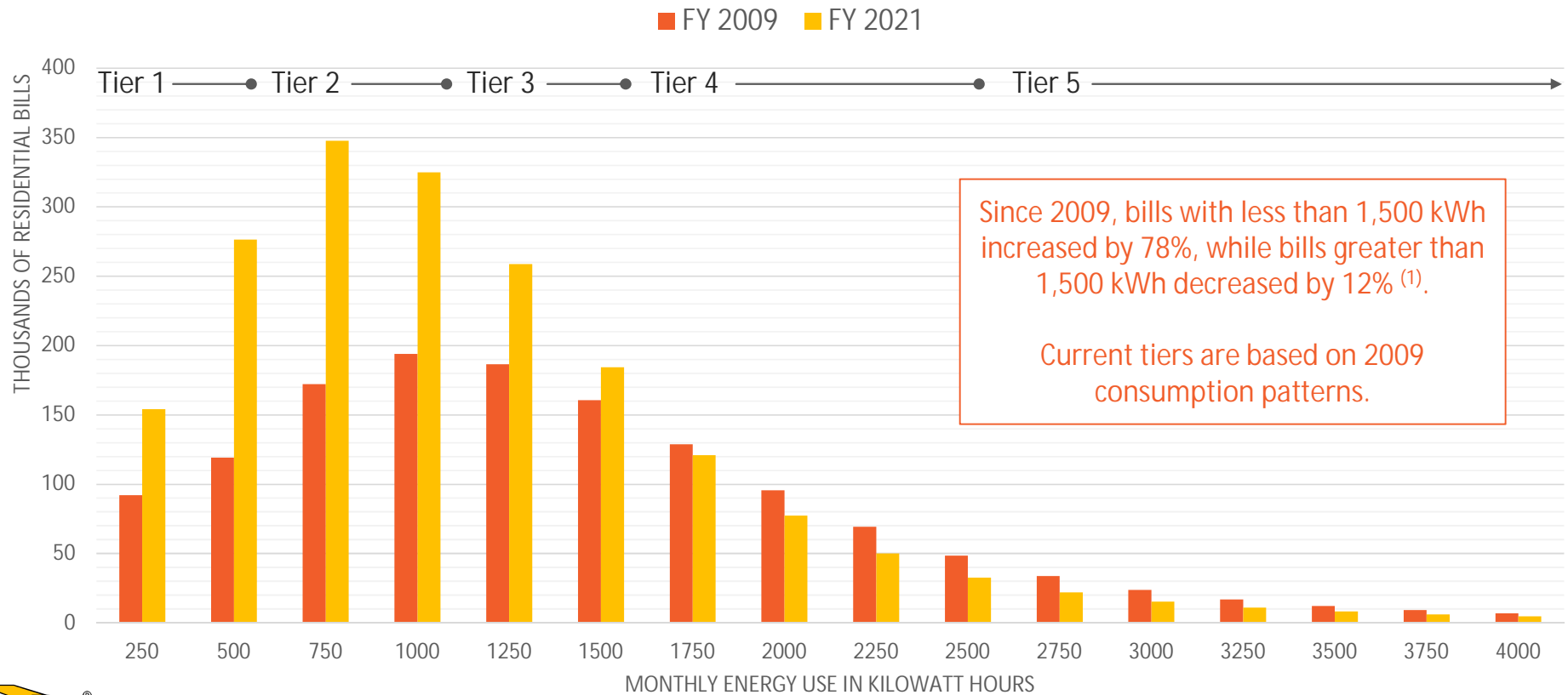


Figure 7-9: Consumption per Premise by Year of Initiation of Service, Single-Family v. Multi-Family  
Austin Energy Base Rate Review 2022, page 85, published April 18, 2022

# Austin Energy 2022 Base Rate Review

Residential Summer Consumption Patterns Dramatically Changed Between 2009 and 2021



(1) Customer Care & Billing System data.

# Austin Energy 2022 Base Rate Review

## Bunching Analysis: If the price changes, does the demand change?

The Theory: Customers respond to tiered prices by reducing consumption.

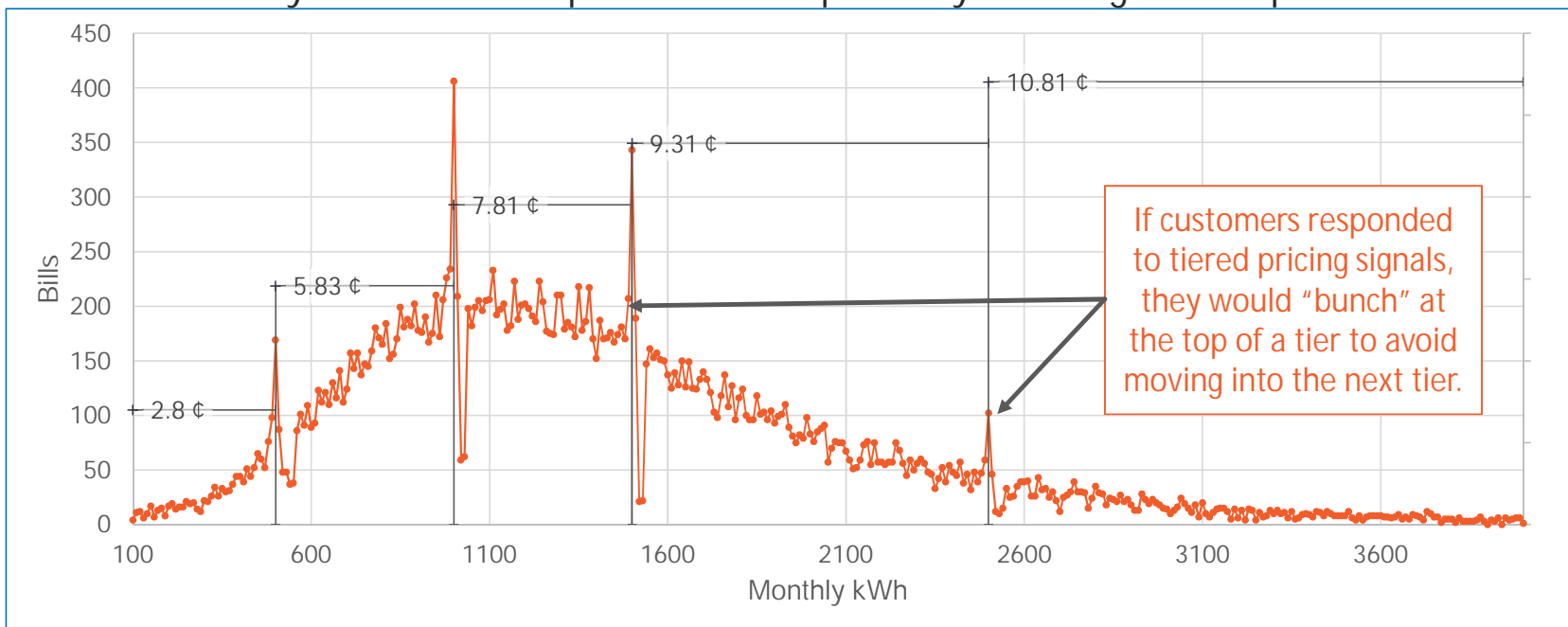


Figure 7-13: Hypothetical Bill Frequency Histogram under Hypothetical "Bunching"  
Austin Energy Base Rate Review 2022, page 91, published April 18, 2022

# Austin Energy 2022 Base Rate Review

## Bunching Analysis: If the price changes, does the demand change?

The Reality: Customers do not respond to tiered prices<sup>(1)</sup>.

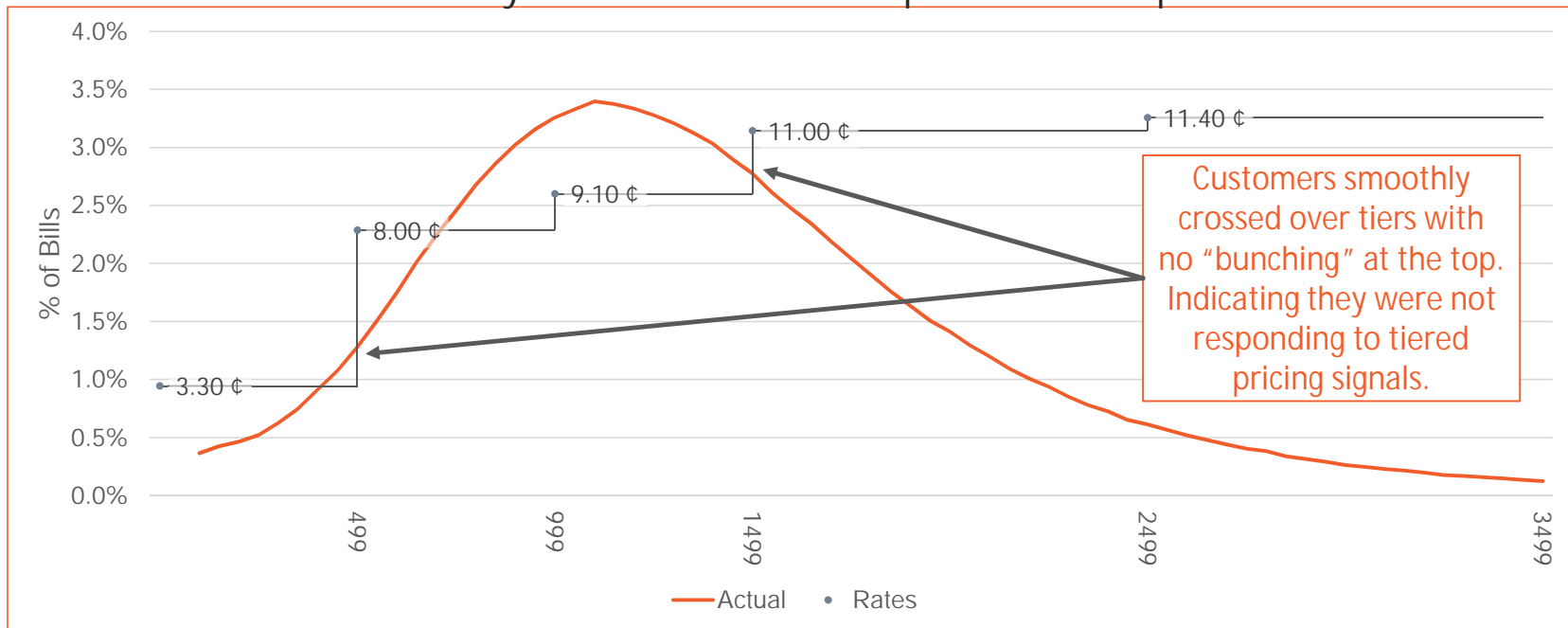


Figure 7-14: Actual Residential Bill Frequency Histogram, kWh per Month, using 2013 – 2016 Billing Data  
Austin Energy Base Rate Review 2022, page 92, published April 18, 2022

(1) Figure represents a population of 145,000 customers with continuous service who resided in single-family residences within the City of Austin from 2013 through 2016. Tier pricing reflects summer base rates approved in the 2012 Base Rate Review.



# Austin Energy 2022 Base Rate Review

## Reduction in Residential Consumption Nearly Identical for Both 3-Tiered and 5-Tiered Pricing

- Residential customers outside the City of Austin have seen a similar reduction in the average kWh per month as customers inside the City of Austin
- Outside the City of Austin, customers use 3 tiers rather than 5 tiers of pricing
- Indicates the number of tiers does not directly contribute to reduced energy consumption

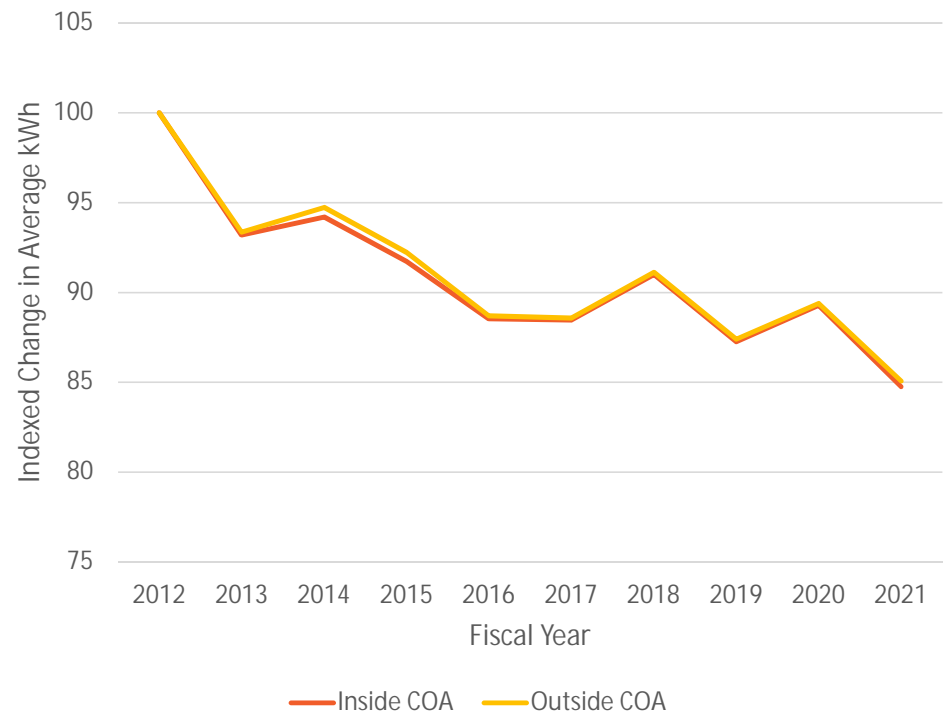


Figure 7-12: Indexed Trends in Average kWh Energy Consumption, Inside-City v Outside-City Residential Customers, 2012 to 2021  
Austin Energy Base Rate Review 2022, page 89, published April 18, 2022



# Austin Energy 2022 Base Rate Review

## 5-Tiered Structure Disproportionately Recovers Costs from Our Vulnerable Customers

- On average, in FY 2020 CAP customers used 11.1% more energy than non-CAP
- 39.6% of our CAP customers are billed at the higher tiered rates, while only a 29.4% of non-CAP customers are in those tiers
- Some high-income households do not use much electricity, and some low-income households use a lot

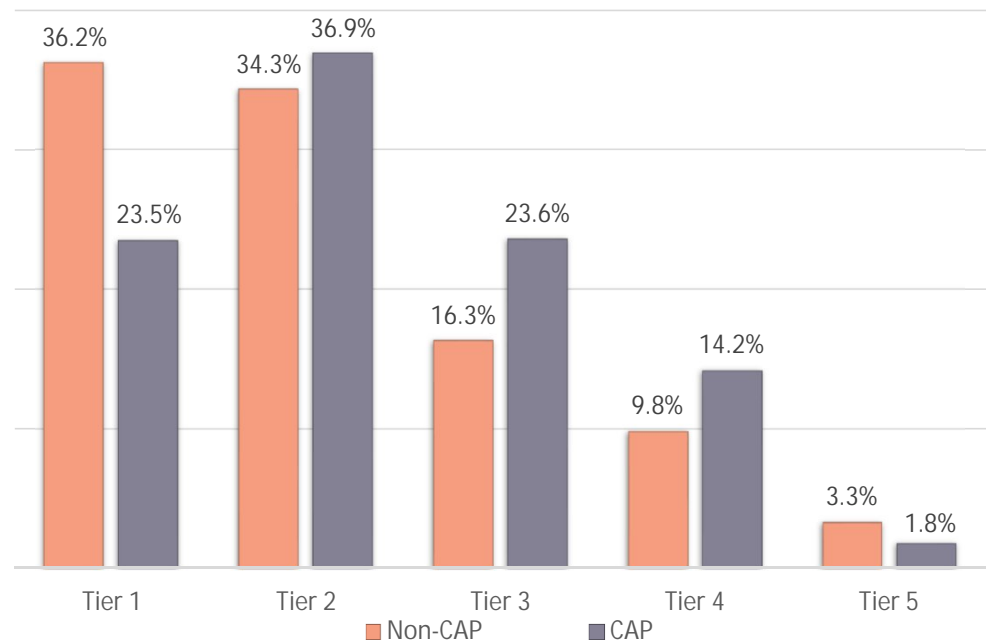


Figure 7-29: Proportion of Consumption in Each Tier Under Current Rates, CAP v. Non-CAP Residential Customers, FY2020  
Austin Energy Base Rate Review 2022, page 107, published April 18, 2022



# Austin Energy 2022 Base Rate Review

## Lower Income does not Always Translate to Lower Consumption: Unintended Consequences

### 78701 (Downtown)

- \$448k (median housing value)
- \$122k (household median income)
- 0.2% (CAP)
- 78% (Bachelor or higher)
- 1.6 (household size)
- \$3.4m (revenue)
- \$66 (average bill)
- 18.4% Single Family
- 26.3% Built post-December 2014

### 78724 (Northeast)

- \$147k (median housing value)
- \$50k (household median income)
- 21.9% (CAP)
- 15% (Bachelor or higher)
- 3.7 (household size)
- \$10.7m (revenue)
- \$102 (average bill)
- 74.4% Single Family
- 19.4% Built post-December 2014



### 2020 Monthly kWh Consumption Boxplot

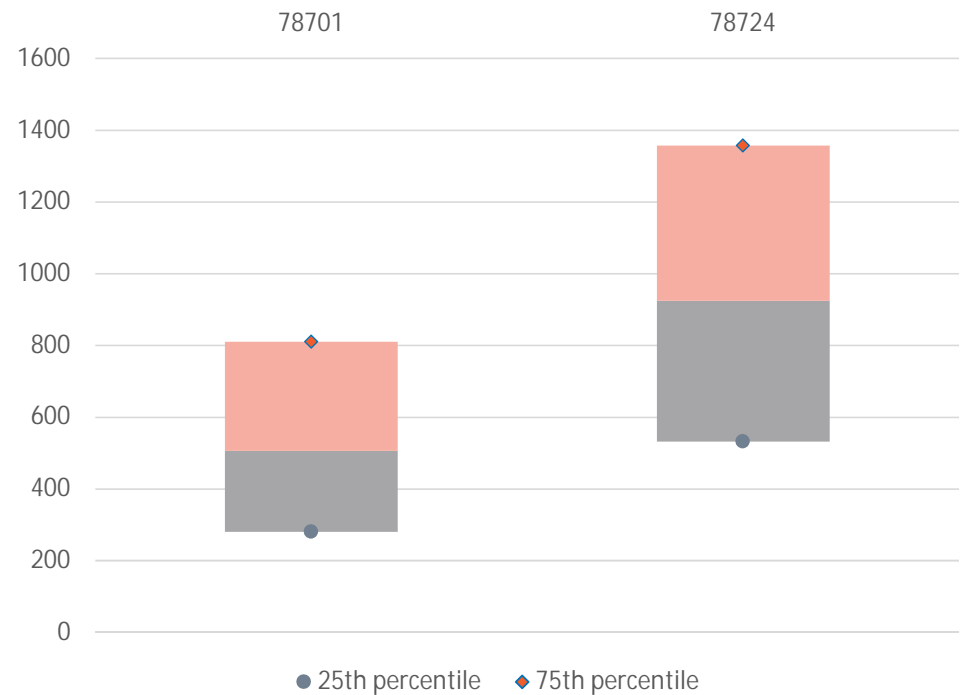


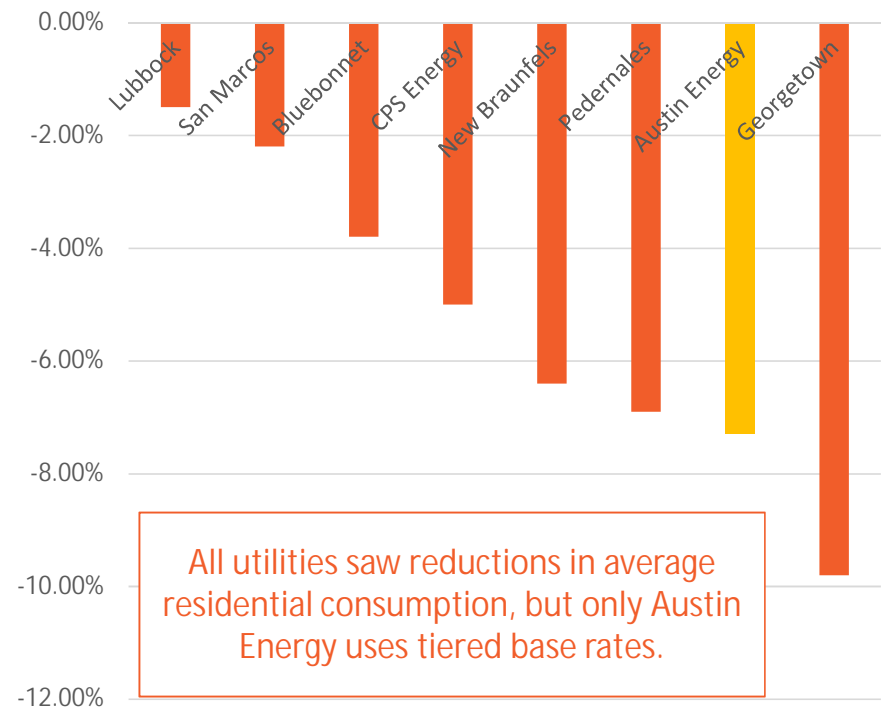
Figure 7-30: Comparison of Income-Related Demographics, Census Data, Zip Codes 78701 and 78724  
Austin Energy Base Rate Review 2022, page 108, published April 18, 2022

# Austin Energy 2022 Base Rate Review

## Residential Consumption, Customer Charges, and Tiered Base Rates for Texas Utilities

Utility	Customer Charge <sup>(1)</sup>	Number of Tiers <sup>(1)</sup>	Average Consumption 2020 (kWh) <sup>(2)</sup>
Lubbock <sup>(3)</sup>	\$8.07	One	959
San Marcos	\$10.25	One	917
Bluebonnet Co-op	\$22.50	One	1,225
CPS Energy	\$9.10	One Summer adder >600kWh	1,099
New Braunfels	\$17.06	One	1,209
Pedernales Co-op	\$22.50	One	1,209
Austin Energy	\$10.00	5 Inside City 3 Outside City	851
Georgetown	\$24.80	One	860

Reduction In Average Residential Consumption Between 2013-2020 <sup>(2)</sup>



All utilities saw reductions in average residential consumption, but only Austin Energy uses tiered base rates.

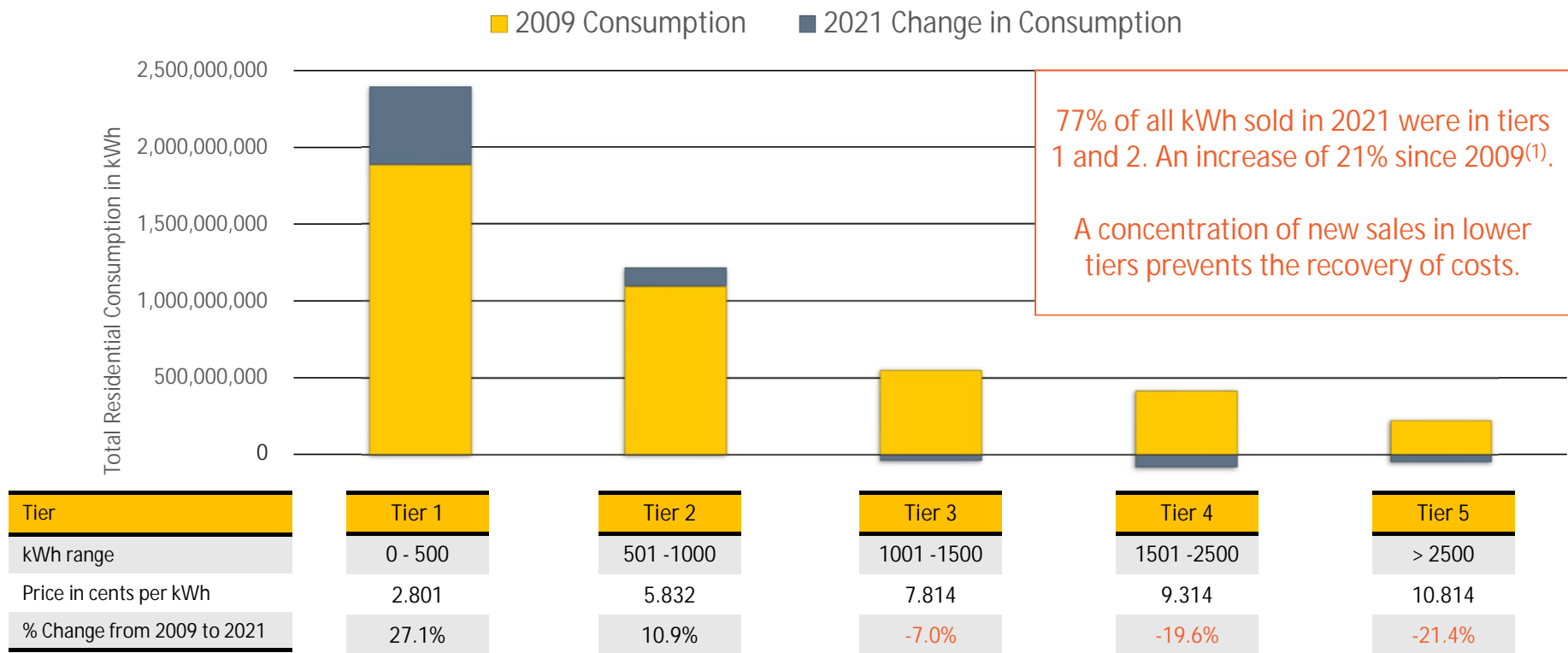


(1) Respective published tariffs as of September 19, 2022  
 (2) Energy Information Administration Form 861 Data for Calendar Year 2020, published October 2021  
 (3) Lubbock Power and Light was not located in ERCOT in 2021



# Austin Energy 2022 Base Rate Review

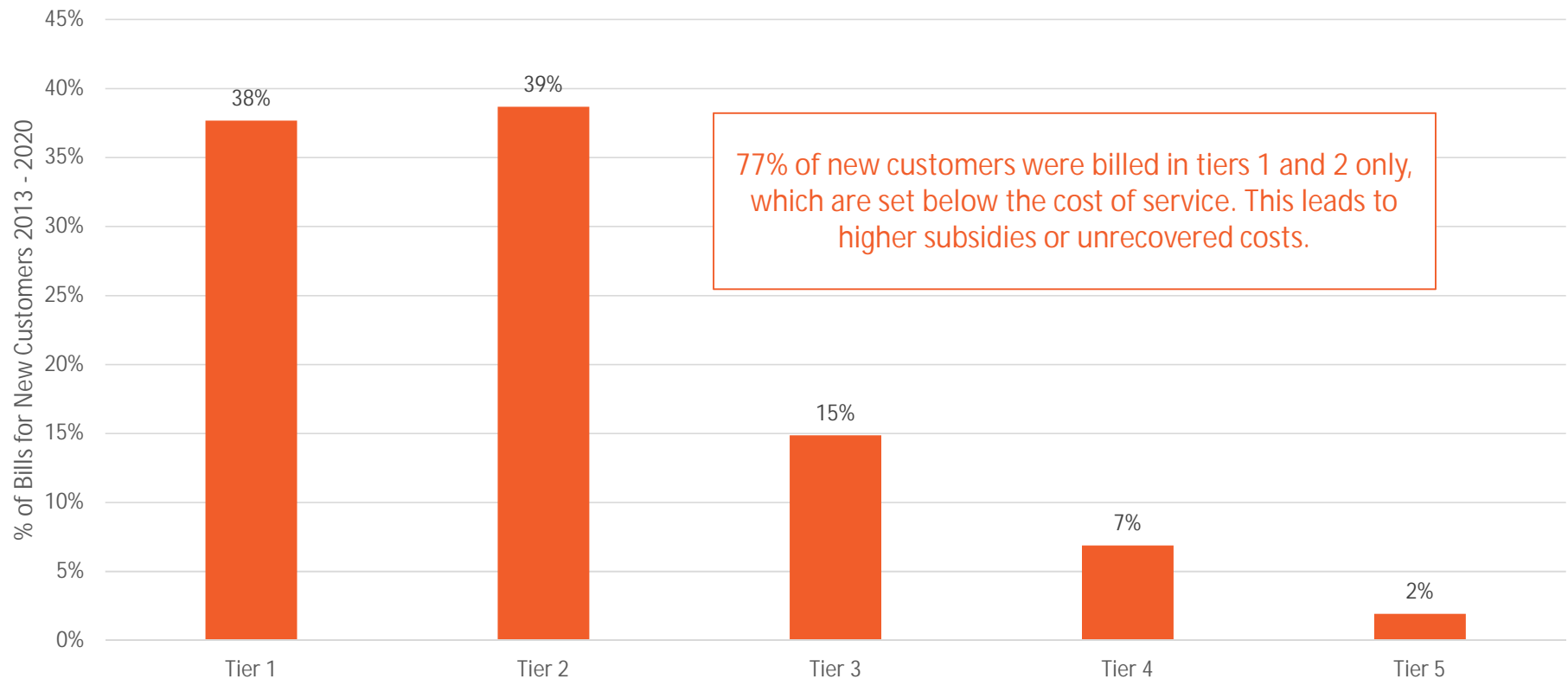
Residential base rate structure must change to reflect actual consumption patterns



(1) Customer Care & Billing System data.

# Austin Energy 2022 Base Rate Review

Growth in Sales in Lower Tiers is Due to New Customers not Migration of Customers<sup>(1)</sup>



(1) Customer Care & Billing System data. Selection criteria were residential customers with 200+ annual kWh with premises with 12 bills and approximately 365 billing days constructed from service points built two years before the billing year.

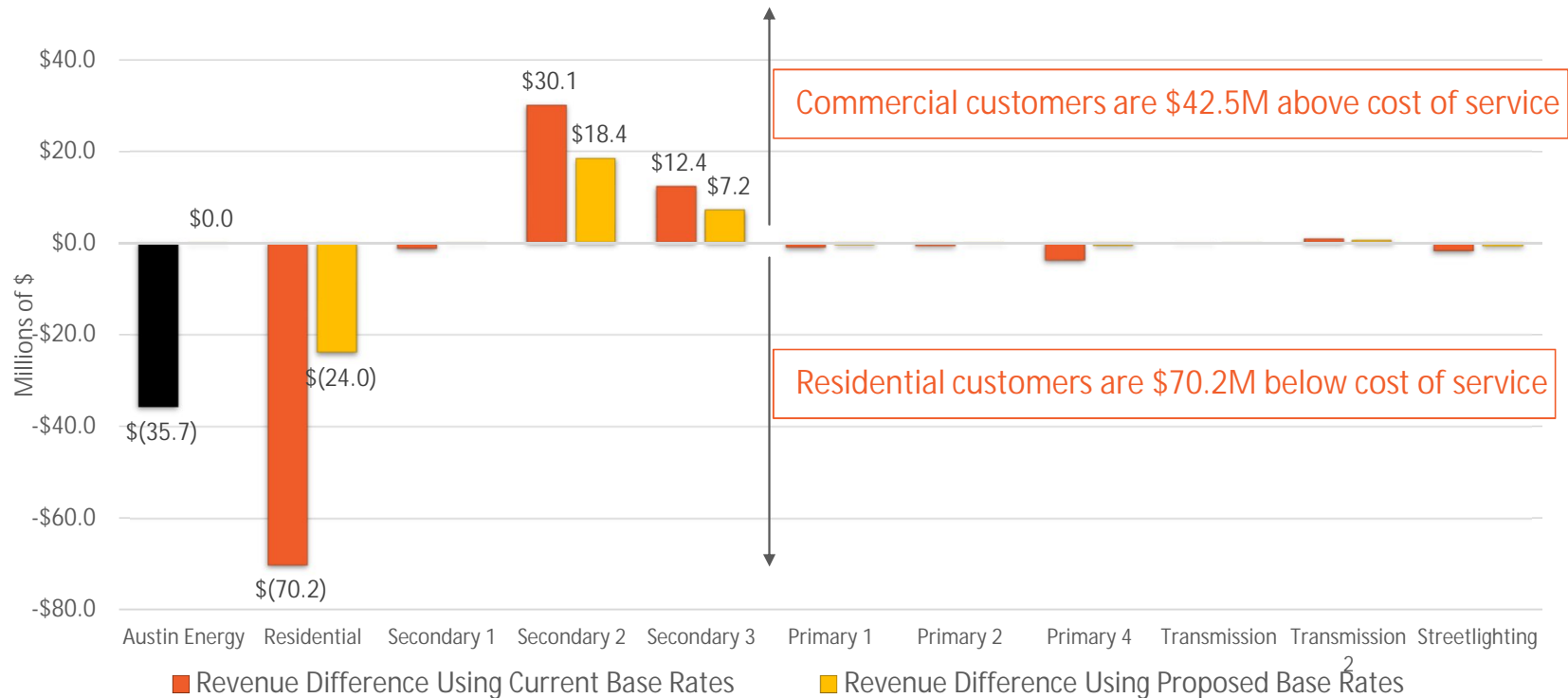
# Austin Energy 2022 Base Rate Review

Residential and commercial customers need to  
move closer to their cost of service



# Austin Energy 2022 Base Rate Review

Residential and Commercial Customers Need to Move Closer to Their Cost of Service



Data presented in Comparison of Cost of Service, Current Base Rates, and Proposed Base Rates, Schedule G-10.2.  
Austin Energy Base Rate Review 2022

# Austin Energy 2022 Base Rate Review

## Inside City of Austin Residential Rate Structure and Pricing Comparison

\$10.00 Customer Charge	Price per kWh	Current	kWh <sup>(1)</sup>	As a %
Below Cost of Service	2.801	Tier 1: 0-500 kWh	2,193,948,158	56.9%
Below Cost of Service	5.832	Tier 2: 501-1000 kWh	1,024,259,393	26.6%
Approximately Cost of Service	7.814	Tier 3: 1001 – 1500 kWh	374,842,802	9.7%
Above Cost of Service	9.314	Tier 4: 1501 – 2500 kWh	193,880,427	5.0%
Above Cost of Service	10.814	Tier 5: > 2500 kWh	68,248,112	1.8%
		Total	3,855,178,893	

Consumption heavily weighted in lower tiers prevents cost recovery

\$25.00 Customer Charge	Price per kWh	Proposed	kWh <sup>(1)</sup>	As a %
Below Cost of Service	3.633	Tier 1: 0-300 kWh	1,443,616,801	37.5%
Approximately Cost of Service	4.133	Tier 2: 301-1200 kWh	1,970,938,514	51.1%
Above Cost of Service	4.633	Tier 3: > 1200 kWh	440,623,577	11.4%
		Total	3,855,178,893	

Proposed tiers are more proportional



(1) kWh represents Test Year 2021 weather normalized sales as used in the Austin Energy Base Rate Proposal.



**Customer Driven.  
Community Focused.<sup>SM</sup>**



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