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March 3, 2026

## MEMORANDUM

**TO:** Council Members

**FROM:** Jennifer Light, Director of Power Planning

**SUBJECT:** Study on Retail Electricity Price Trends

## BACKGROUND:

**Presenter:** Ryan Hledik, The Brattle Group

**Summary:** Ryan will present on recent work completed by Lawrence Berkeley National Laboratory and The Brattle Group exploring the factors influencing retail electricity prices in the US. This work provides useful insights into electricity price changes relative and the largest drivers of those changes.

**Relevance:** One of the key purposes of the Council is to ensure an adequate, efficient, economical, and reliable power supply. The Ninth Power Plan will seek to develop a strategy for new resource development that is cost-effective and balances the many purposes of the Power Act. Understanding the recent drivers in retail price trends will provide useful context as the Council considers modeling results and develops its recommendations for the Ninth Plan.

**Workplan:** B. Development of Ninth Power Plan

**More info:** This [presentation](#) from Lawrence Berkeley National Lab and The Brattle Group summarizes the comprehensive work in the area of retail electricity price trends.

# U.S. Retail Electricity Price Trends

PRESENTED BY

Ryan Hledik

NORTHWEST POWER & CONSERVATION COUNCIL MEETING

MARCH 10, 2026



# Electricity rates are suddenly an election-defining issue

**“Over the past few years, millions of Americans have seen their electricity bills skyrocket.”**

*Washington Post, January 15, 2026*

**“Discontent over rising power bills has become a hot political issue that is expected to spill into the 2026 midterm elections.”**

*Wall Street Journal, December 29, 2025*

**“Concern about rising electricity rates has emerged as a leading economic and political issue. Rising electricity prices played a big role in recent elections, including statewide races in Georgia, New Jersey and Virginia.”**

*New York Times, December 16, 2025*



**Factors Influencing Recent Trends in Retail Electricity Prices in the United States**  
*What do we know? Where are the gaps?*

Ryan Wisser, Galen Barbose, Peter Cappers, Jeffrey Deason, Sydney Forrester, Will Gorman, Eric O’Shaughnessy  
**Lawrence Berkeley National Laboratory**

Ryan Hledik, Long Lam, Audrey Yan  
**The Brattle Group**

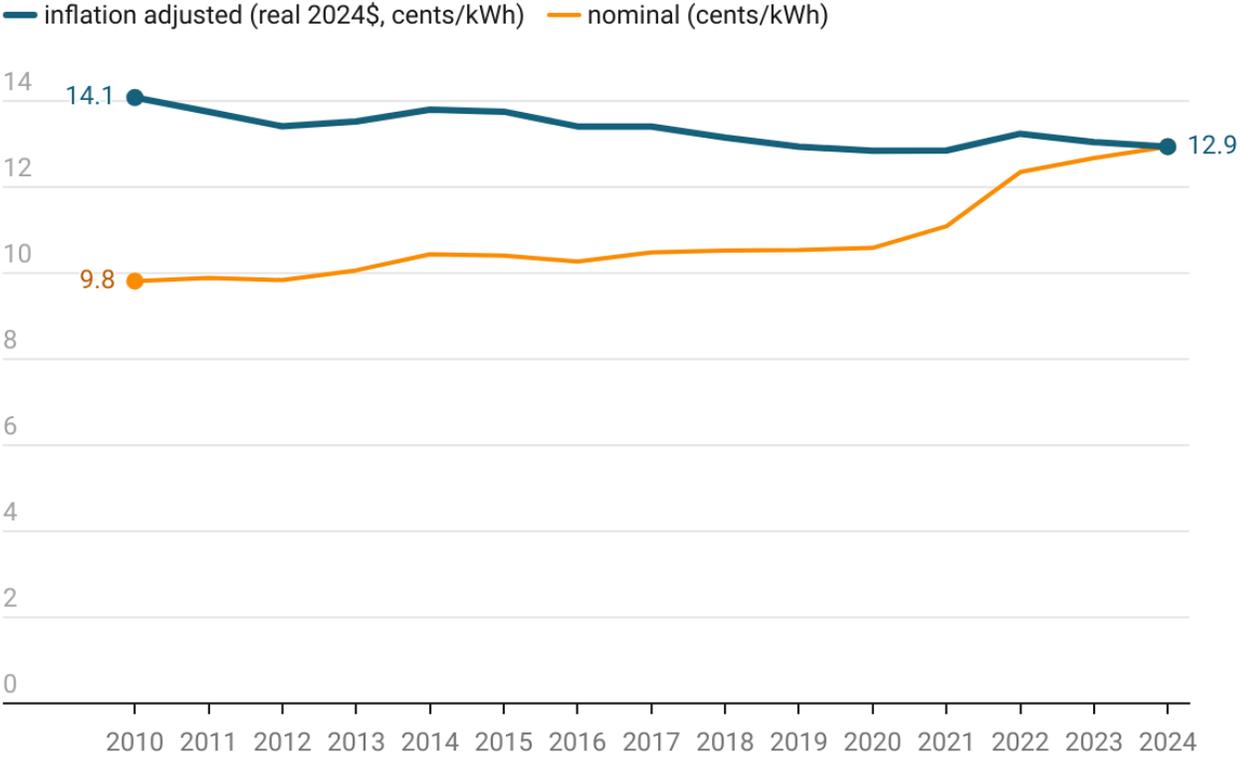
October 2025

This work was funded by the U.S. Department of Energy under Contract No. DE-AC02-05CH11231. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, or The Regents of the University of California.

Image source: OpenDALIFE

# Retail prices are up, but have tracked inflation (on average)

## National Average Retail Electricity Prices



Source: EIA • Created with Datawrapper

Notes: Represents the “all-in” price, equivalent to total customer bills (including volumetric, demand, and fixed charges) divided by total retail electricity sales, and covers all costs associated with the provision of retail service (generation + transmission + distribution).

Source: Wiser et al, “[Factors Influencing Recent Trends in Retail Electricity Prices in the United States](#), October 2025.

# Electricity costs have decreased as a share of personal expenditures



**Residential electricity costs as a percentage of personal consumption expenditures**



However, some metrics indicate that energy affordability concerns have increased for a portion of the population.

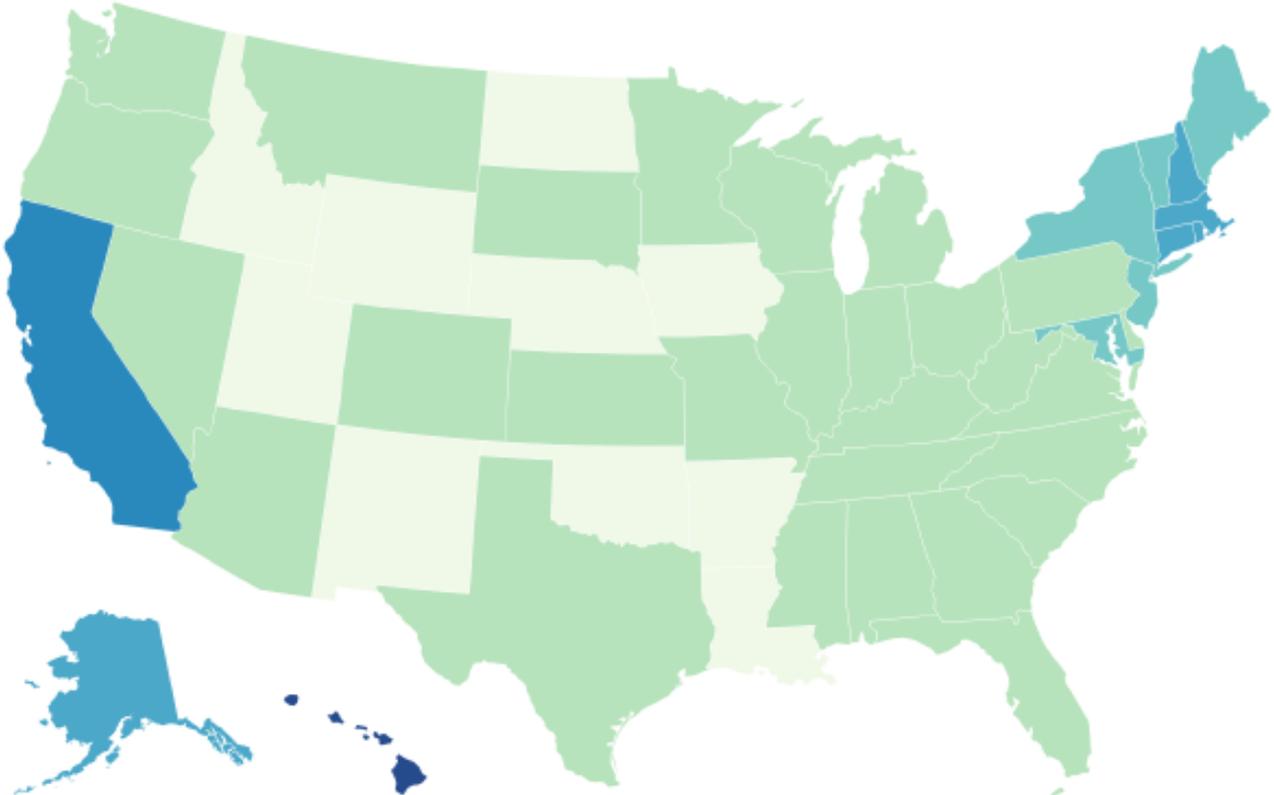
Source: Wiser et al, "[Factors Influencing Recent Trends in Retail Electricity Prices in the United States](#)", October 2025.

# Rates in the Pacific Northwest are still competitive

## Average Retail Electricity Price in 2024

(real 2024\$, cents/kWh)

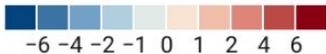
< 10 10-15 15-20 20-25 25-30 30-35 ≥ 35



# Recent price changes varied significantly across states

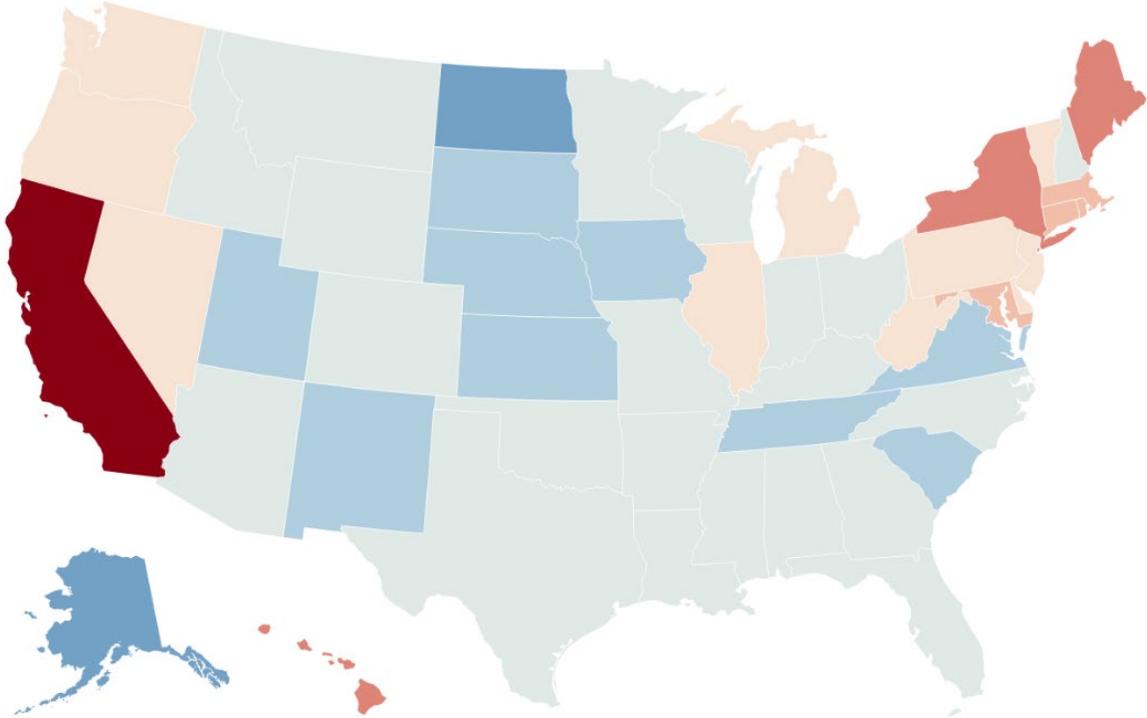
## Change in Average Retail Electricity Prices: 2019-2024

Real 2024\$ cents/kWh, inflation adjusted



**Real**  
*(inflation adjusted)*

Northwest prices growing faster than national average



Source: EIA • Created with Datawrapper

Source: Wiser et al, "[Factors Influencing Recent Trends in Retail Electricity Prices in the United States](#), October 2025.

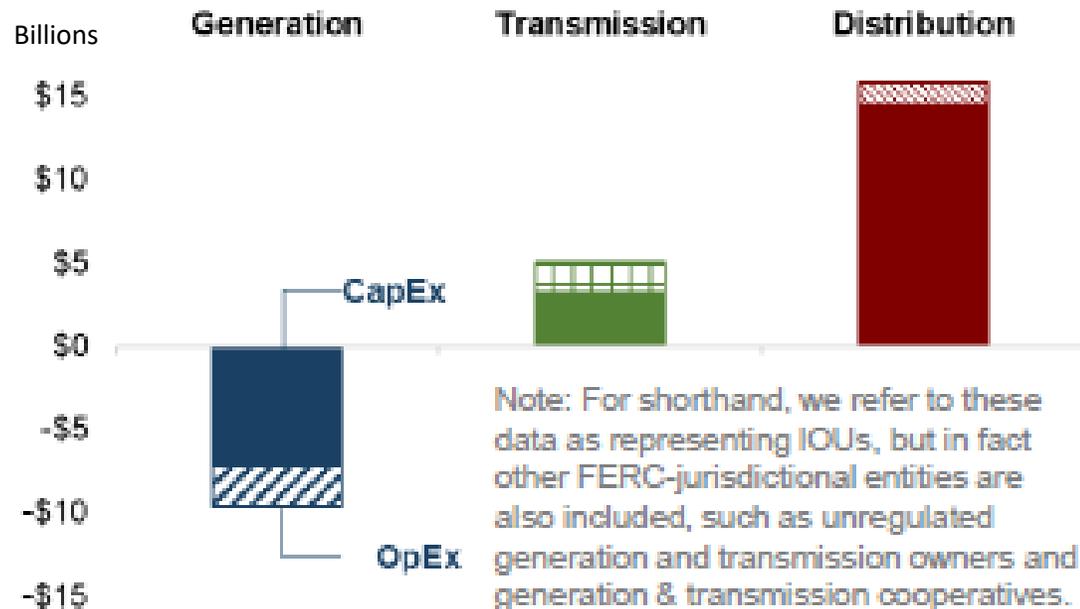
# The drivers of price changes are diverse

	Impact	Geographic Breadth
Replacement & hardening of aging distribution (and transmission)	 medium	Large
Extreme weather & wildfires: recovery and mitigation	 larger	Medium
Natural gas price variability	  larger	Large
Customer load growth	 medium	Medium
Utility-scale wind & solar (market based)	 medium	Medium
State Renewable Portfolio Standard policies	 medium	Medium
Net energy metered solar	 larger	Small

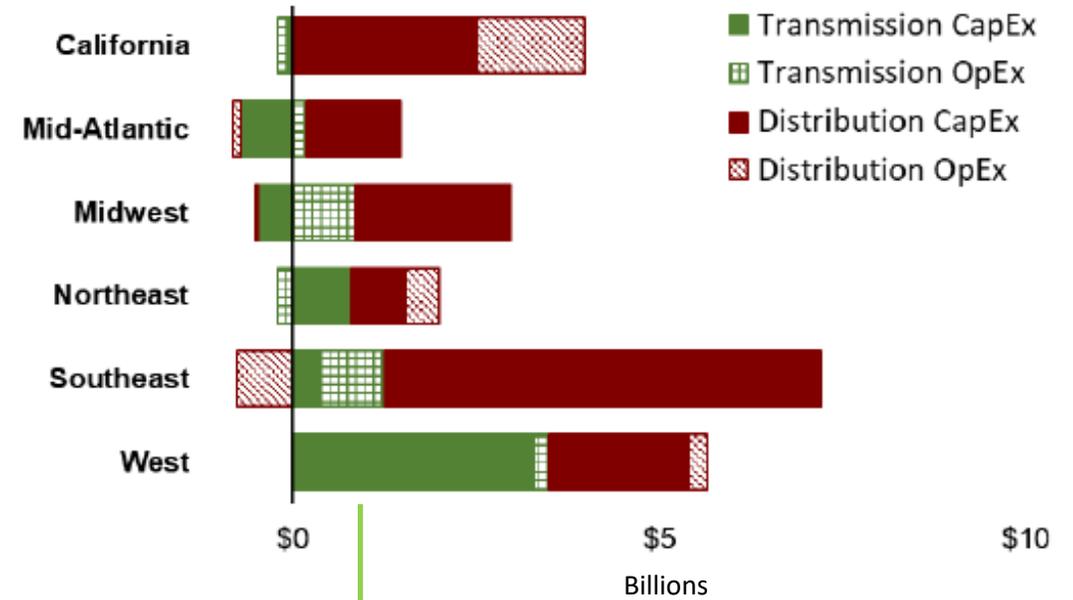
Source: Wiser et al, [“Factors Influencing Recent Trends in Retail Electricity Prices in the United States](#), October 2025.

# There's no way around it - the grid is aging

Change in U.S. IOU expenditures (2019-2024)



Change in U.S. IOU expenditures, by region (2019-2024)



*Impact of significant PacifiCorp investment.*

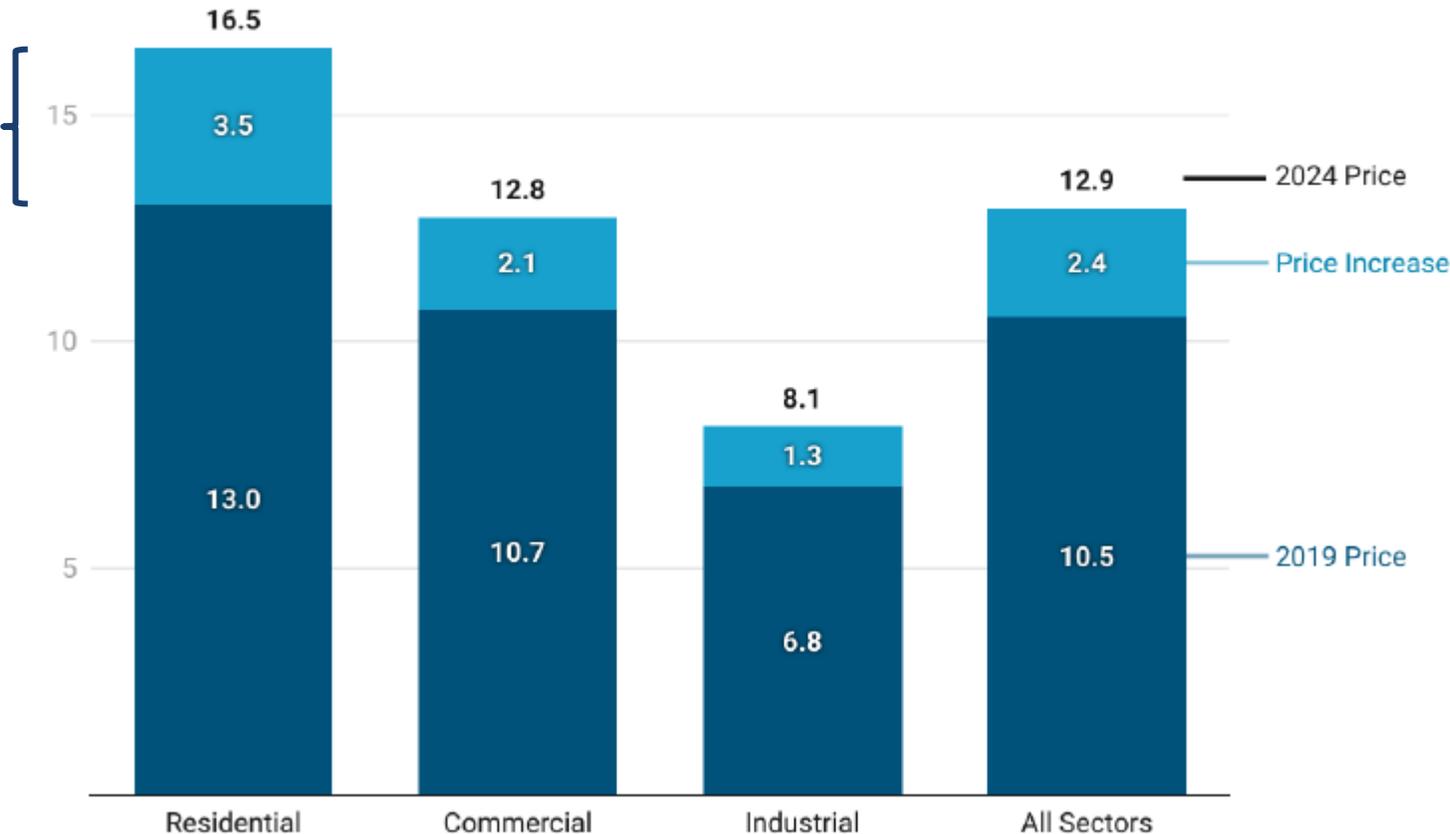
# Residential customers may be disproportionately impacted by the rising distribution costs



## Average Nationwide Retail Price by Sector: 2019 and 2024

Nominal cents/kWh (not inflation adjusted)

27% residential growth, compared to 19% for C&I



# The price impact of natural disasters comes in two flavors

## Preparation...

*Rate impacts of wildfire risk mitigation*

Utility	State	Equivalent cost impact (cents/kWh)
PG&E	CA	7.0
SDG&E	CA	3.0
SCE	CA	2.6
KIUC	HI	1.7
Hawaii Electric	HI	1.5
PSCo	CO	1.4
Rocky Mountain Power	UT	0.8
★ Pacific Power	OR	0.7
Rocky Mountain Power	WY	0.6
★ PGE	OR	0.6
AEP Texas	TX	0.5
★ Northwestern	MT	0.5
APS	AZ	0.4
★ Idaho Power	ID	0.3
★ Avista	WA	0.2
Nevada Power-North	NV	0.2
Oncor	TX	0.2
Nevada Power-South	NV	0.2
PNM	NM	0.1
★ PSE	WA	0.1
SPS	TX	0.1

## ...and recovery

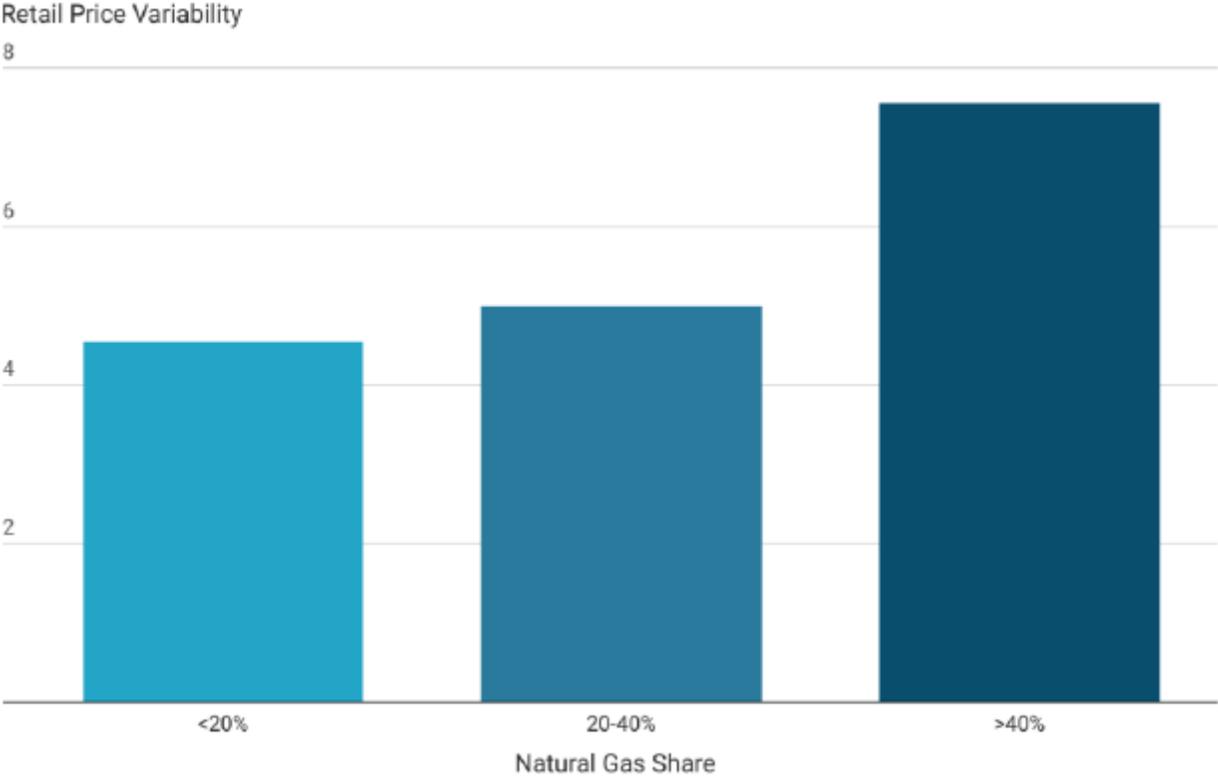
*Rate impacts of storm recovery*

Utility	State	Year	Duration	Price impact (cents/kWh)	Normalized 1-year cost (cents/kWh)
Duke Energy Florida	FL	2025	1-year	3.2	3.2
Central Maine Power	ME	2025	2-years	2.4	3.1
Tampa Electric Company	FL	2025	1.5-years	2.0	3.0
Entergy Louisiana	LA	2025	15-years	1.4	20.0
Florida Power & Light	FL	2025	1-year	1.2	1.2
Eversource	CT	proposed	6-years	1.1	6.4
NYSEG	NY	2025	6-11 years	1.1	9.6
Central Florida Electric Coop.	FL	2025	temporary	0.9	1.4
SWEPCO	LA	2025	14-years	0.6	9.0
Duke Energy Progress	SC	2025	20-years	0.5	10.0
Oncor	TX	proposed	long-term	0.5	0.6
Duke Energy Carolinas	LA	2022	9-20 years	0.5	7.6
Centerpoint	TX	2025/proposed	15-years	0.3	3.8
Duke Energy Progress	NC	2022	20-years	0.2	4.9
Entergy Texas	TX	2022	15-years	0.2	3.4
PSE&G	NJ	2025	long-term	0.2	0.4
★ Portland General Electric	OR	2023	7-years	0.1	0.8
Duke Energy Carolinas	NC	2022	20-years	0.1	1.0

# Natural gas dependence drives price variability

## Natural Gas Share vs. Retail Price Variability: 2010-2024

Retail electricity price variability calculated as state-average coefficient of variation of annual prices from 2010-2024. Natural gas share presented as average state share of total generation over same period.



Source: EIA • Created with Datawrapper

Single largest driver of price increases nationally in past year.

How do customers perceive price variability?

# The impact of renewables is multi-faceted

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## Market-based renewables procurement

- Slight **downward** rate pressure due to low-cost energy, resource diversity
- Integration costs do not appear to drive rate increases

## RPS requirements

- Modest **upward** rate pressure due to cost premium of out-of-market purchases
- Deliberate investment to avoid greater cost of climate change
- Policy requirements can indirectly drive technology cost declines
- State variability depending on whether requirement is binding

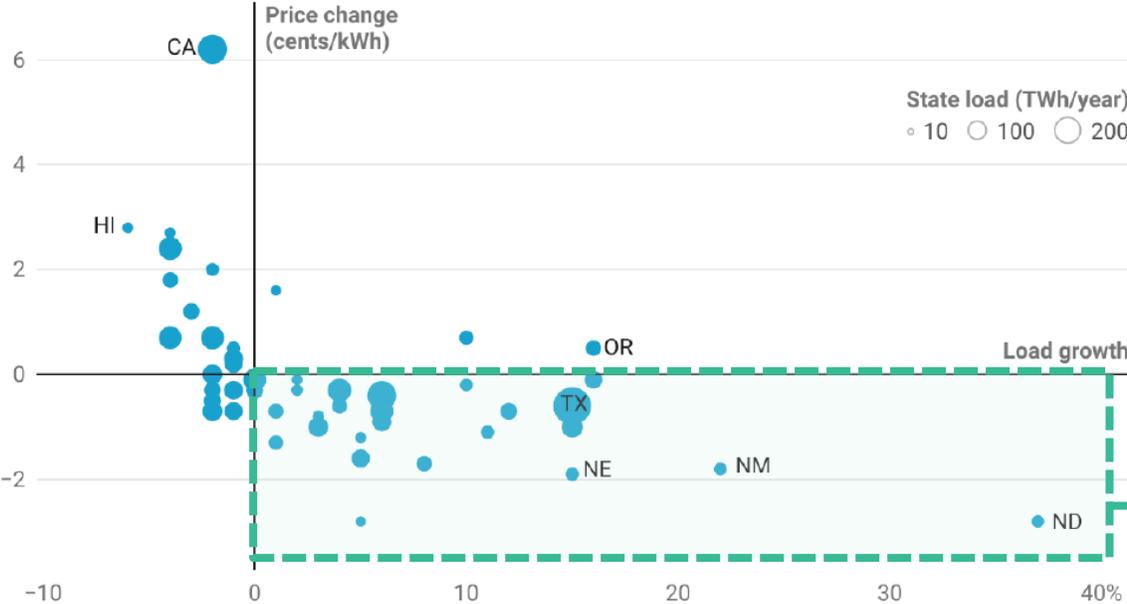
## Net Energy Metering

- Modest **upward** rate pressure due to recovering fixed costs over reduced sales base
- Mostly a factor in states with significant rooftop solar adoption
- NEM reform increasingly addressing this cost-shift

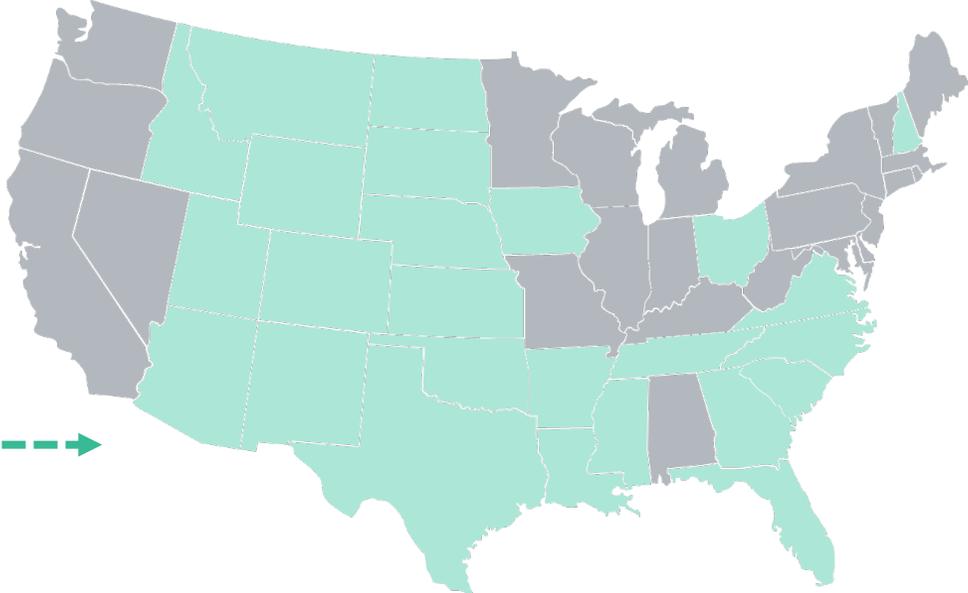
# Load growth *could* put downward pressure on prices



**Load Growth vs. Retail Electricity Price Changes, 2019-2024**



**States with Load Growth & Inflation-Adjusted Price Decrease, 2019-2024**

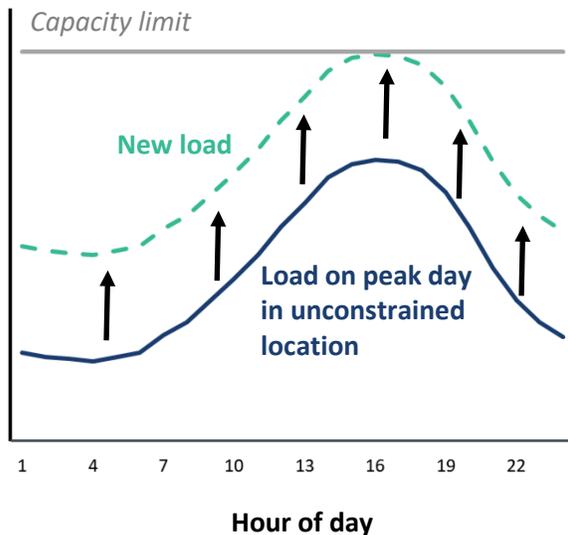


Source: Source: Wiser et al, "Factors Influencing Recent Trends in Retail Electricity Prices in the United States, October 2025.  
 Notes: Price change in cents/kWh, inflation adjusted to 2024\$. Load growth in percentage terms from 2019 to 2024.

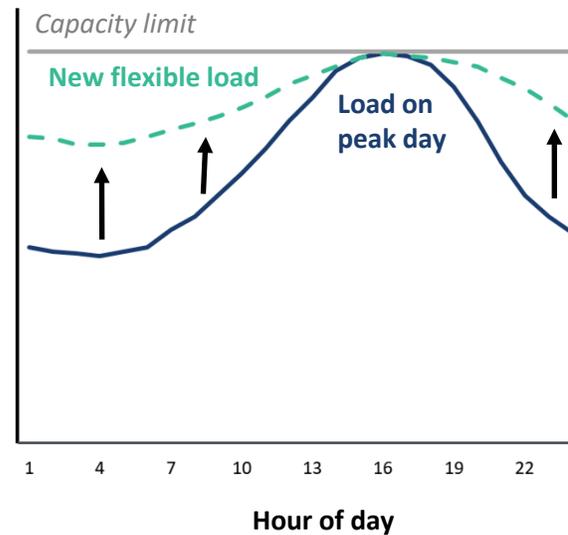
# The three ways to improve system utilization

System utilization can be improved by adding new load when and where there is spare capacity. System headroom can be created through deployment of flexible distributed energy resources (DERs).

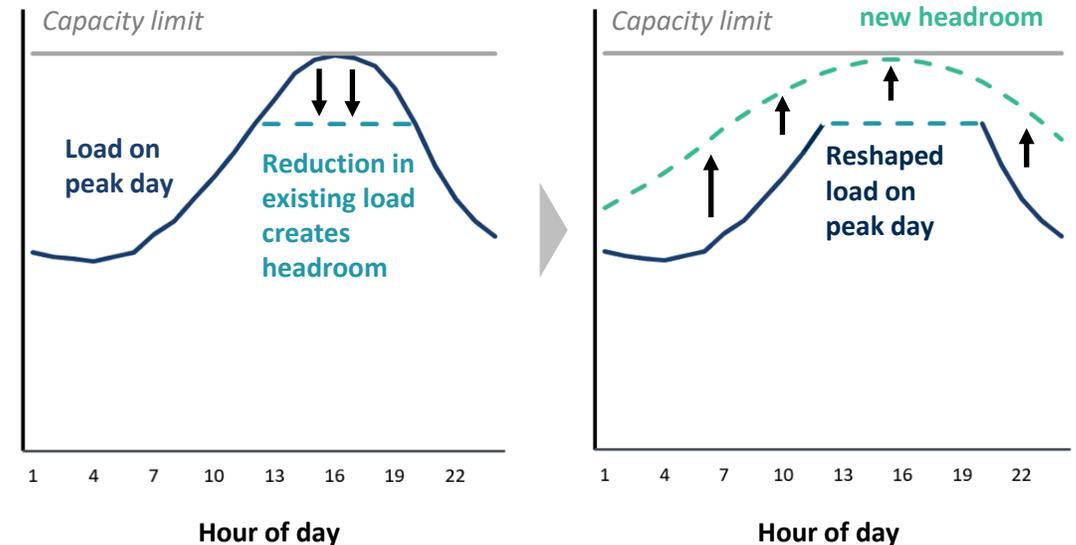
- 1 Add new load in locations where sufficient headroom already exists on the system.



- 2 Add new load at times when there is spare capacity. This is possible if the new customers are flexible and/or can self-supply during peak conditions.



- 3 Incentivize technologies and behavioral changes that reduce peak demand of existing load. This creates new headroom on the system, which can then accommodate the addition of new load.

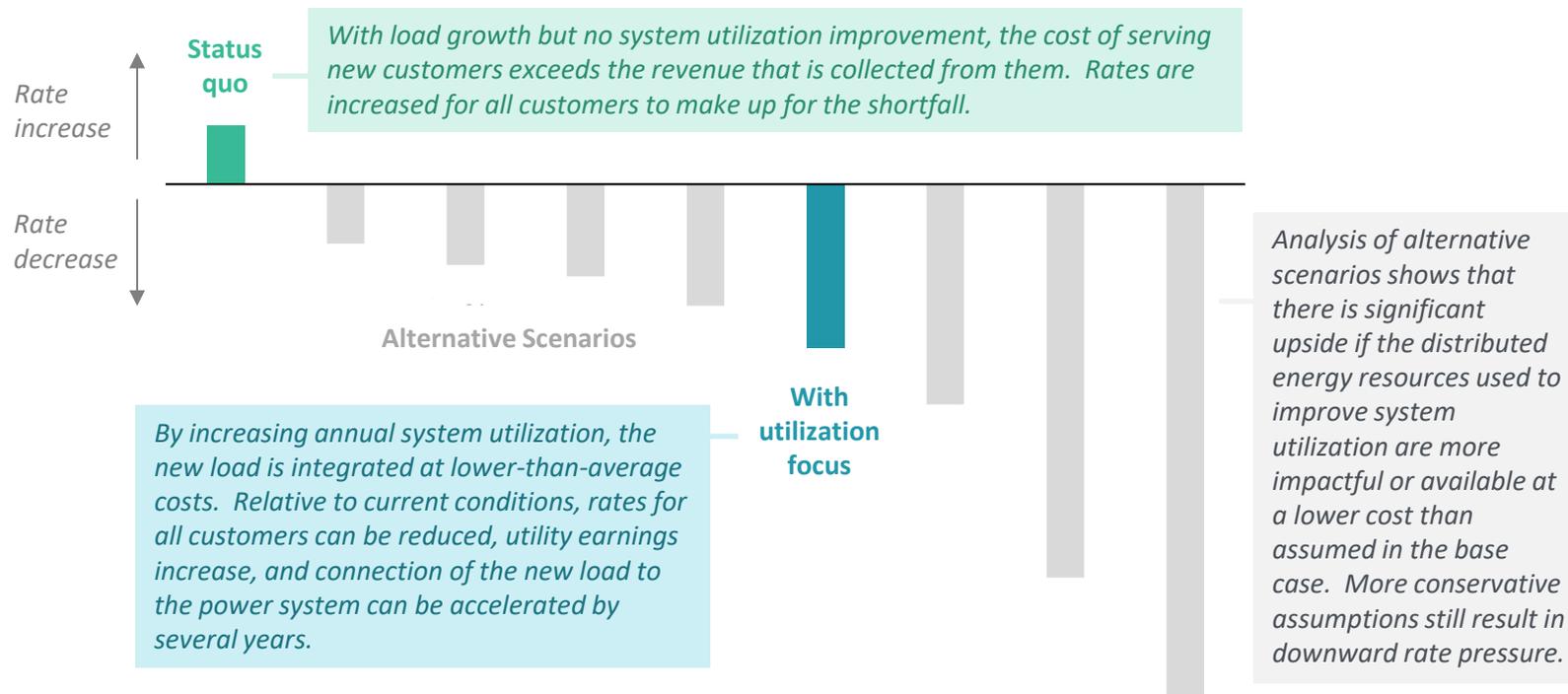


Note: These are highly simplified conceptual illustrations. The nuances of how improved system utilization would put downward pressure on rates are discussed in more detail throughout this report.

# The rate impacts of improved system utilization

All else equal, improving system utilization can reduce customer bills and accelerate the connection of new load while still allowing utility revenues and earnings to grow relative to current levels.

**All-in Average Rate Impact Due to Load Growth**  
*For various characterizations of the power system*



## Important considerations

- Exposure to wholesale market prices
- Rate design and cost allocation
- Differences between generation, transmission, and distribution
- Scale of flexibility opportunities
- Existing system characteristics, including current utilization level

More information in forthcoming Brattle report for GridLab and the Utilize Coalition.

# There are tools to mitigate price increases

	Solutions	Regulators	Utilities	Grid planners / operators	Governors and Legislators	Others
<b>Maximize the Value of the Existing Power System (Section III)</b>	A. Enable distributed and demand-side resources	✓	✓	✓		Third-party DER aggregators
	B. Enhance rate options	✓	✓		✓	
	C. Utilize GETs, ATTs, and RASs	✓	✓	✓	✓	
	D. Capitalize on transmission upsizing opportunities	✓	✓	✓		
	E. Facilitate interregional trade			✓	✓	
<b>Cost-Effectively Accelerate the Grid Connection of New Loads (Section IV)</b>	A. Enable customer-sponsored generation	✓	✓	✓	✓	
	B. Co-locate new generation and load	✓	✓	✓	✓	Energy park developers
	C. Streamline generator interconnection processes	✓	✓	✓		Transmission owners
<b>Implement Proactive Planning and Procurement Processes to Accelerate the Necessary Investments (Section V)</b>	A. Proactively plan generation and transmission	✓	✓	✓	✓	Power procurement authorities; State energy offices
	B. Reform generator procurement processes	✓	✓	✓	✓	Power procurement authorities; State energy offices
	C. Proactively plan distribution systems	✓	✓			
	D. Improve load interconnection processes	✓	✓		✓	State energy offices
<b>Introduce Targeted Affordability Measures (Section VI)</b>	A. Offer energy efficiency and bill assistance	✓	✓		✓	State energy offices
	B. Implement specialized rates for new large loads	✓	✓		✓	
	C. Explore alternative financing	✓	✓		✓	Private developers

For further discussion, a recent [Brattle report](#) highlights the importance of optimizing grid infrastructure and proactive planning.