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Amped Up: Factors Impacting Retail Electricity Prices in the United States

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Image source: OpenAI DALL-E

Objectives and Scope of Study Released October 2025

Context: Retail electricity prices have recently increased nationally in concert with economy-wide inflation, but with significant differences among states

Goal: Add nuance to current discussions about the "national electricity affordability crisis" and the scapegoating that often occurs when identifying causes of that "crisis"

STUDY SCOPE

Summarize recent retail electricity price trends

- National- and state-level price trends, since **2010 and 2019**

Assess drivers of recent retail electricity price changes

- Most-likely drivers of state-level price changes, **2019 to 2024 + some 2025**

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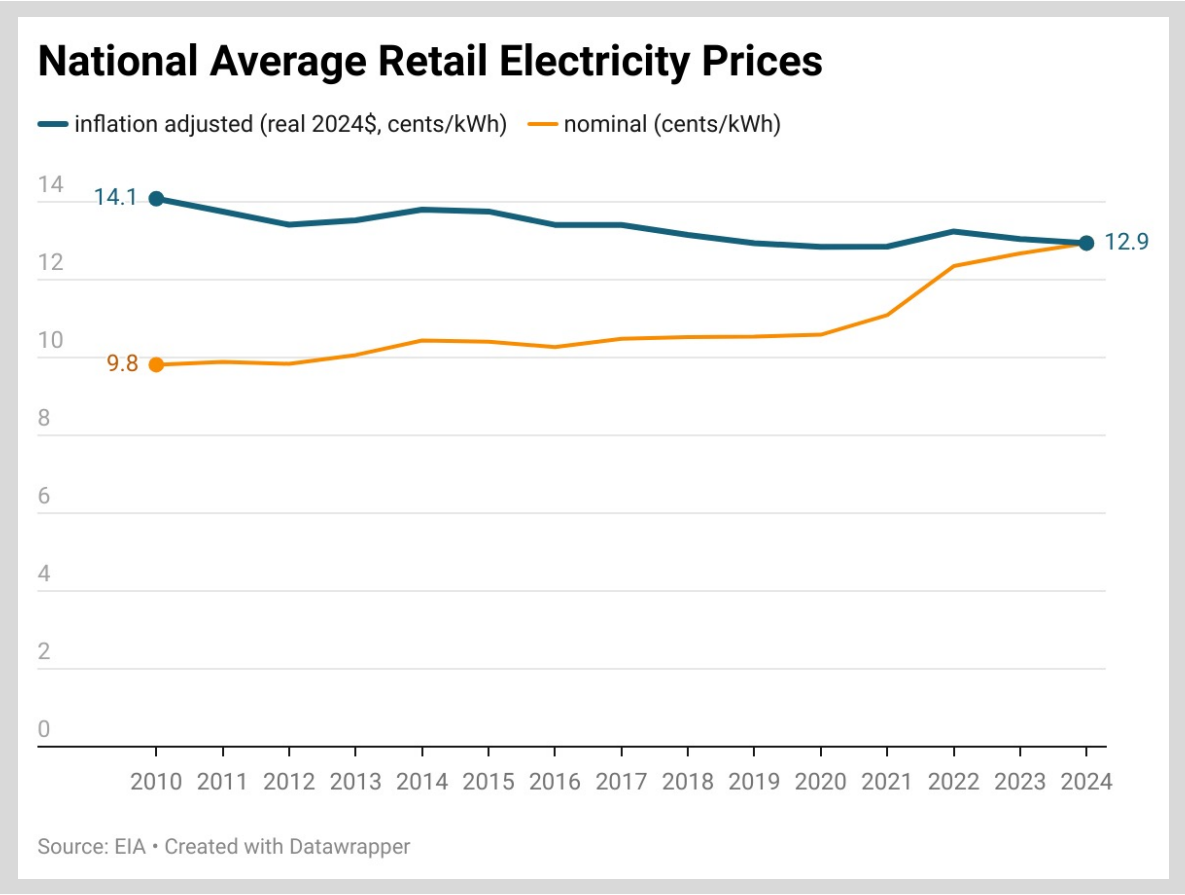
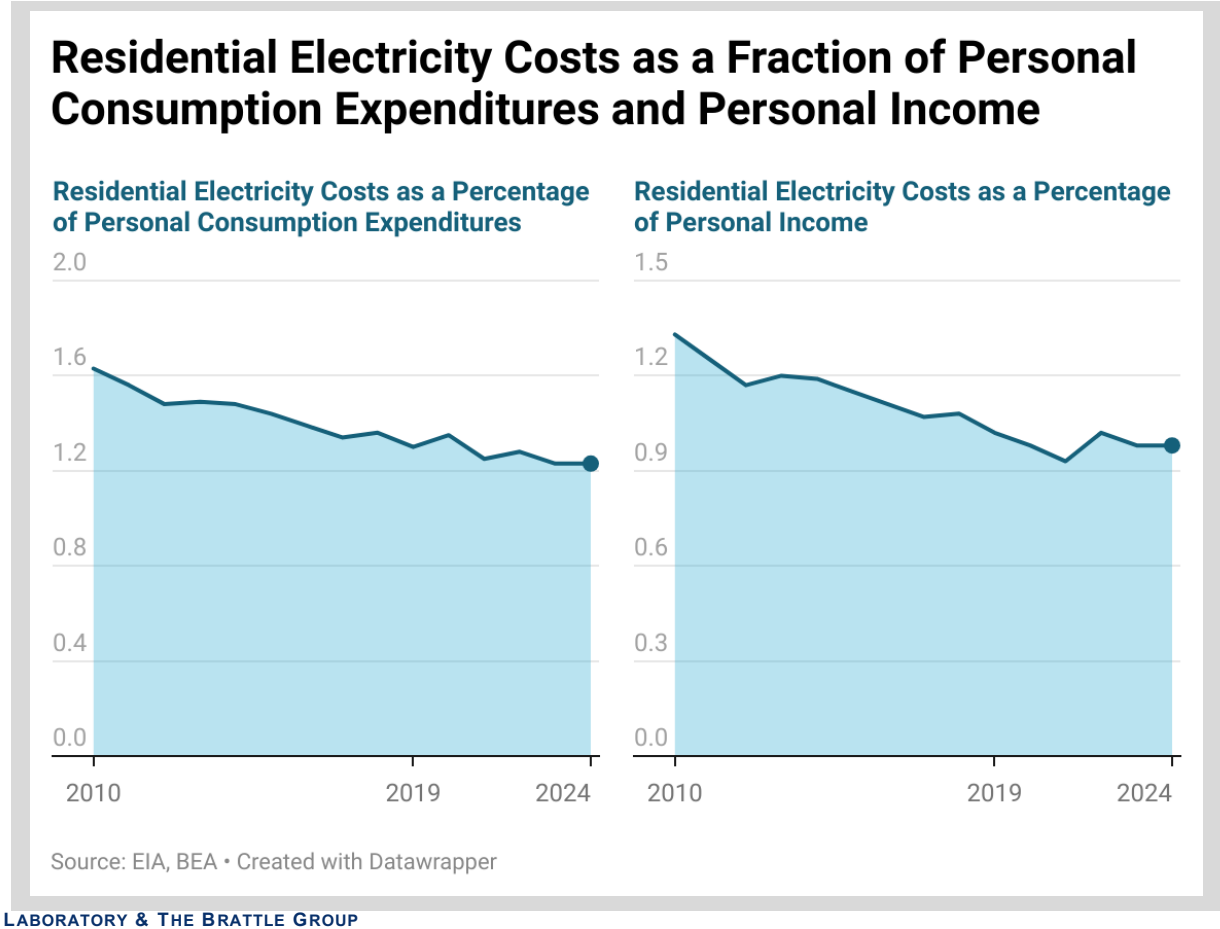
Trends – *Level-setting on historical data*

While national-average nominal retail electricity prices have increased in recent years, the increases have largely tracked inflation



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)

National residential electricity costs as a fraction of personal expenditure *(left)* and income *(right)* have been trending down



Regardless of trends at the national level, energy expenditures are a major hardship for some households and trends vary dramatically across states

~25% of households are heavily burdened

Household Concerns About Energy Affordability

A look at the financial strain and hardship faced by some U.S. households due to energy costs.

In the Last 12 Months...

34% of households reduced or forwent basic necessities like food or medicine to pay an energy bill.

22% kept their home at a temperature that felt unsafe or unhealthy.

24% were unable to pay an energy bill in full.

In 2024...

13% of households were behind on their electricity bills.

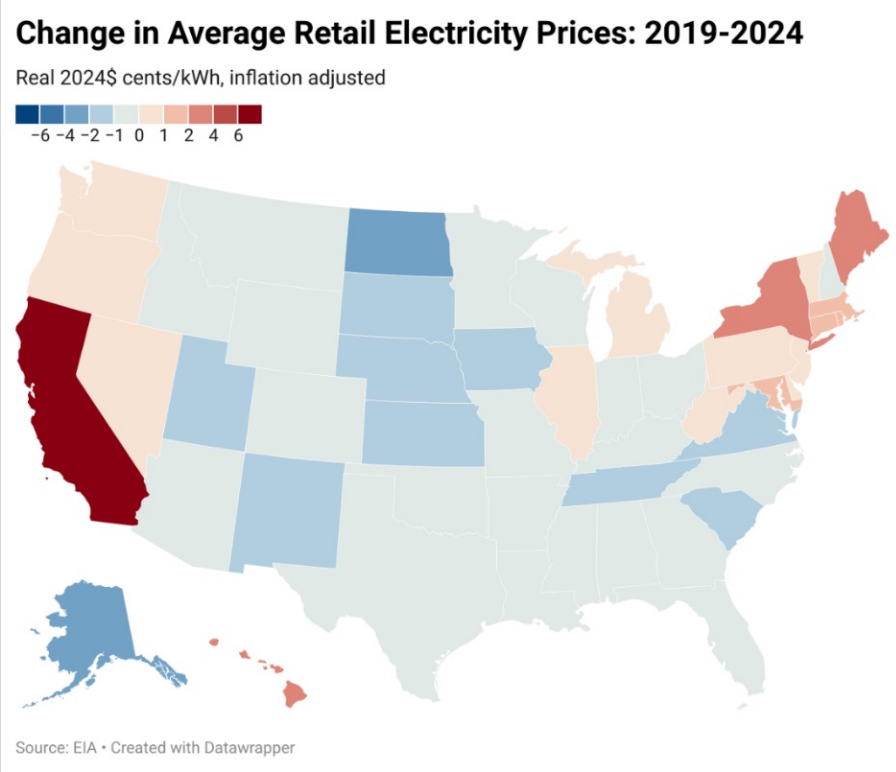
2.7 million households had their utility service shut-off due to non-payment.

Looking Ahead to 2025...

73% of households are very or somewhat concerned that electric and/or gas bills will increase this year.

Sources: U.S. Census Bureau: Household Pulse Survey (2024); NEADA (2024); Powerlines (2025).

National trends mask state-level variation



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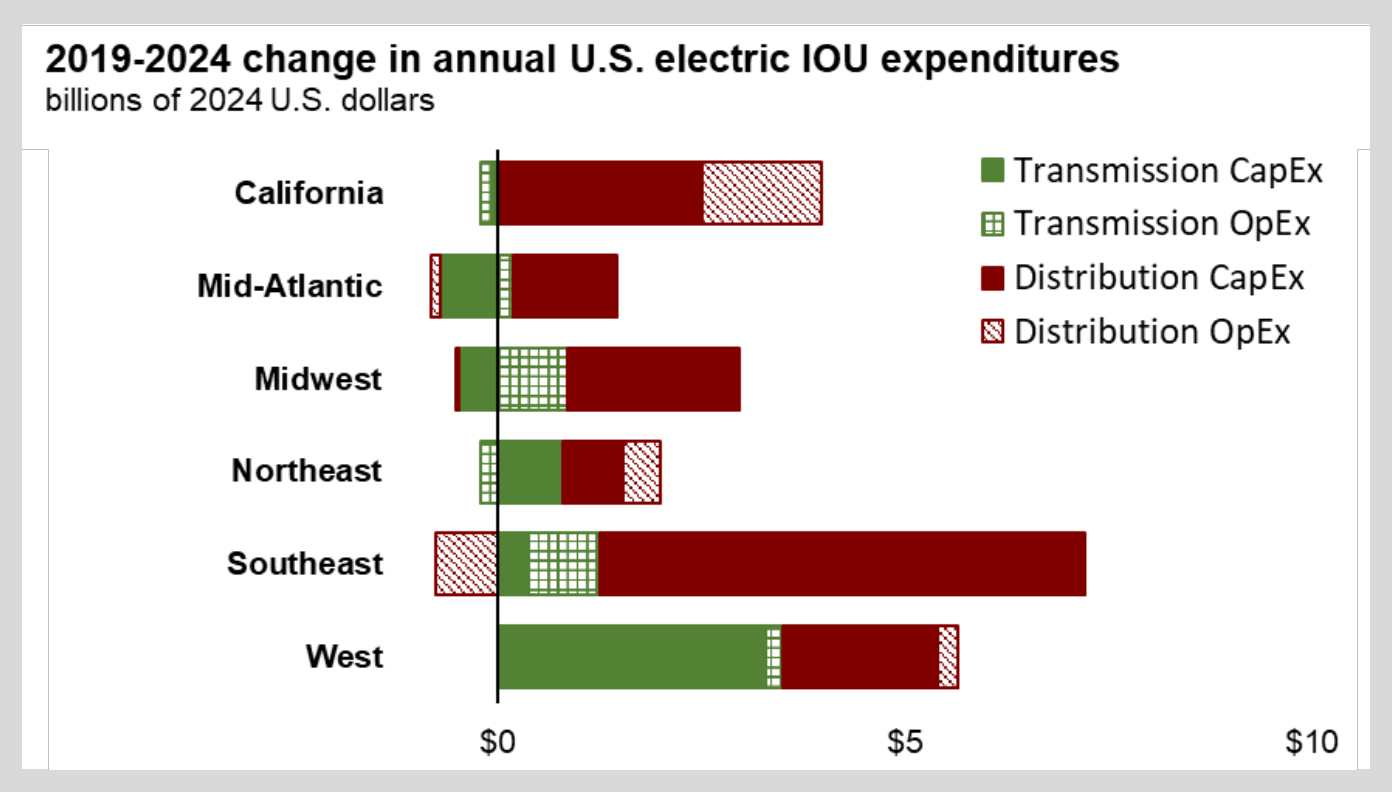
Drivers – *Understanding state variation, 2019-2024*

Distribution (& transmission) expenditures have contributed to retail price increases, whereas direct generation costs have declined nationally



Sources: Updated analysis of FERC Form 1 data, based on similar methods as in EIA (2024) and Forrester et al. (2024)

Sources: Brattle (2025), EEI (2024), Lubershane (2025)

Storm recovery and wildfire mitigation costs have significantly increased prices in some states—can be among the largest drivers of price changes

Recent Estimates of Utility Storm Recovery Price Impacts

Price estimate represents actual or likely impact on (mostly) residential retail prices in year shown, but some cost recovery mechanisms are short duration (i.e., the reported impact is temporary) whereas in other cases costs are securitized and the reported price impacts will persist for as many as 20+ years. Normalized 1-year cost estimates represent the total costs recovered over the recovery period divided by one year's of retail sales, and reflect the retail price impact that could occur if costs were recovered in a single year. Data are imperfect and should only be used to illustrate the wide range of and significant impacts. Includes recent estimates for only a subset of utilities.

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

Source: LBNL • Created with Datawrapper

Recent Estimates of Utility Wildfire Mitigation Costs

Includes estimates for a subset of electric utilities. As per note below, data shown are not always equivalent to retail price impact, and are not fully comparable with one another.

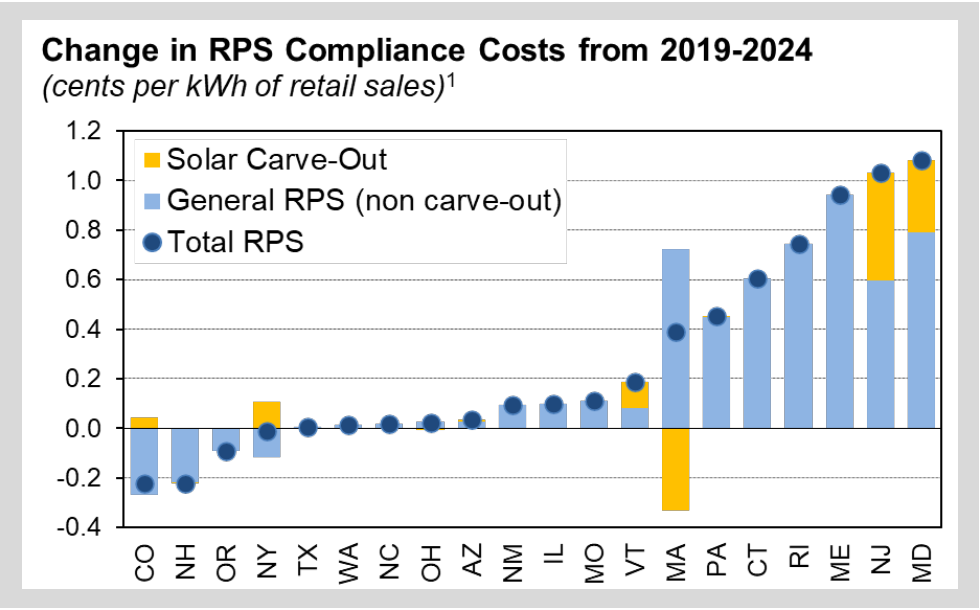
Utility	State	Equivalent cost impact (cents/kWh)
PG&E	CA	7.0
SDG&E	CA	3.0
SCE	CA	2.6
KIUC	HI	1.7
Hawaii Electric	HI	1.5
PSCo	CO	1.4
Rocky Mountain Power	UT	0.8
Pacific Power	OR	0.7
Rocky Mountain Power	WY	0.6
PGE	OR	0.6
AEP Texas	TX	0.5
Northwestern	MT	0.5
APS	AZ	0.4
Idaho Power	ID	0.3
Avista	WA	0.2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

Cost estimates are recent (e.g., 2024-2025) or projected (2026-2028), and normalized by retail sales. Data do not always equate to retail prices, and are not fully comparable given different scopes (e.g., liability insurance is only included in a subset), tariff surcharges vs. balancing accounts, vs. revenue requirements, different mixes of CapEx and OpEx, etc. Data should therefore only be used to illustrate wide range of and significant impacts.

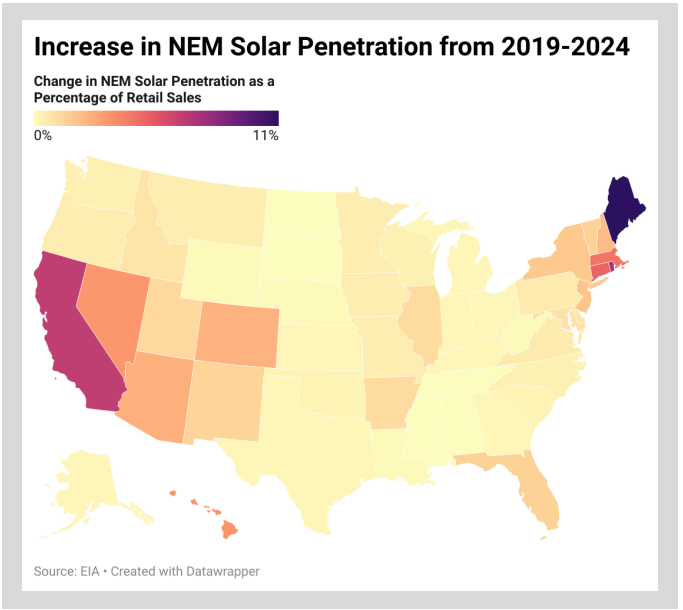
Source: LBNL • Created with Datawrapper

Source: Review of available data from regulatory filings and tariffs, for subset of utilities

State policies to require or encourage wind and solar deployment above what the competitive market would deliver have often increased prices

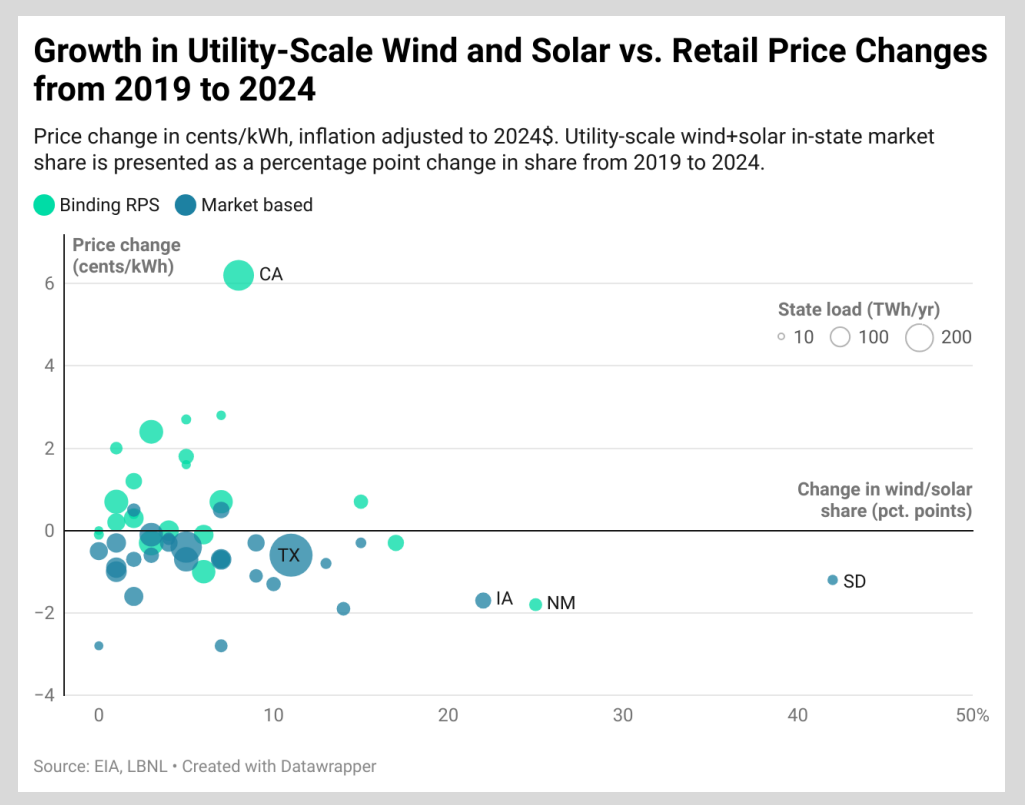


Sources: [1] Barbose (2024)



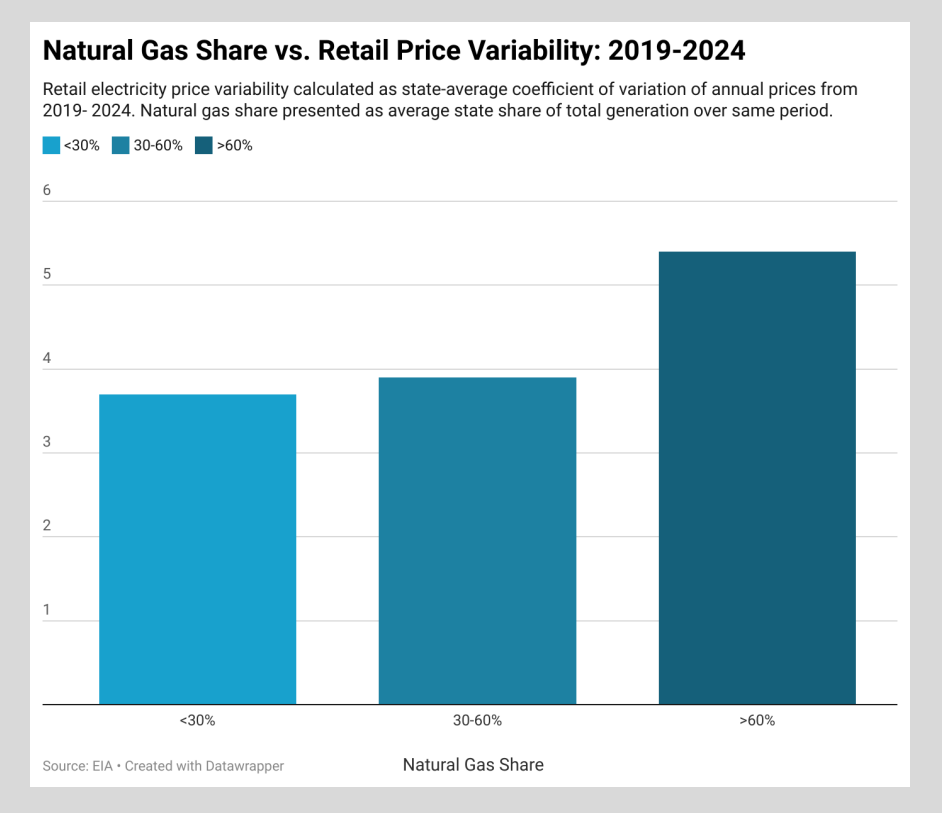
Sources: [2] National Academies (2023), Sieren-Smith et al. (2024), O'Shaughnessy et al. (2025)

State RPS policies often increased prices but "market based" wind & solar, supported by tax incentives, do not appear to drive retail price increases



Simple graphic should be interpreted with care because price changes were driven by multiple factors and due to correlated effects; statistical analysis was used to isolate drivers, and produced results consistent with general observed trends

Low-cost natural gas has reduced retail electricity prices over the long term; gas price fluctuations impact year-to-year variation in electric prices



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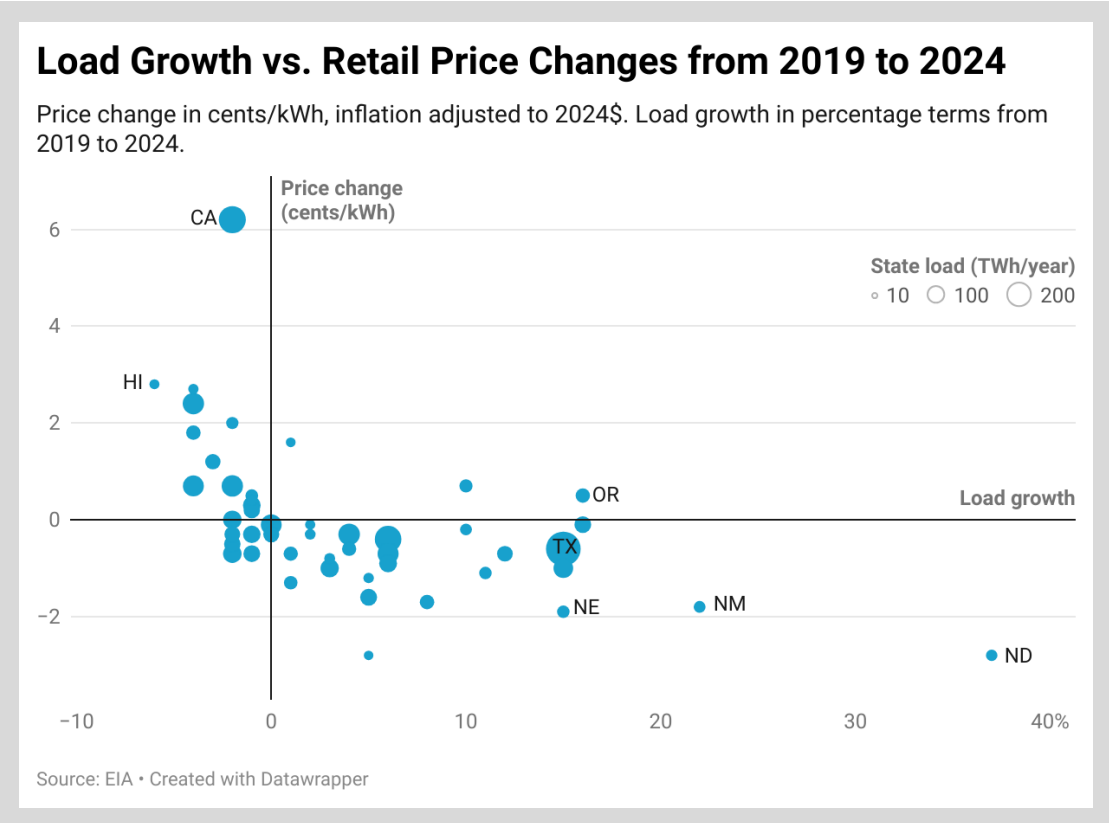
POTENTIAL PRICE DRIVERS: LOAD GROWTH

Load growth at the state level has tended to depress retail electricity prices in recent years…*unclear to what degree this will hold in the future*



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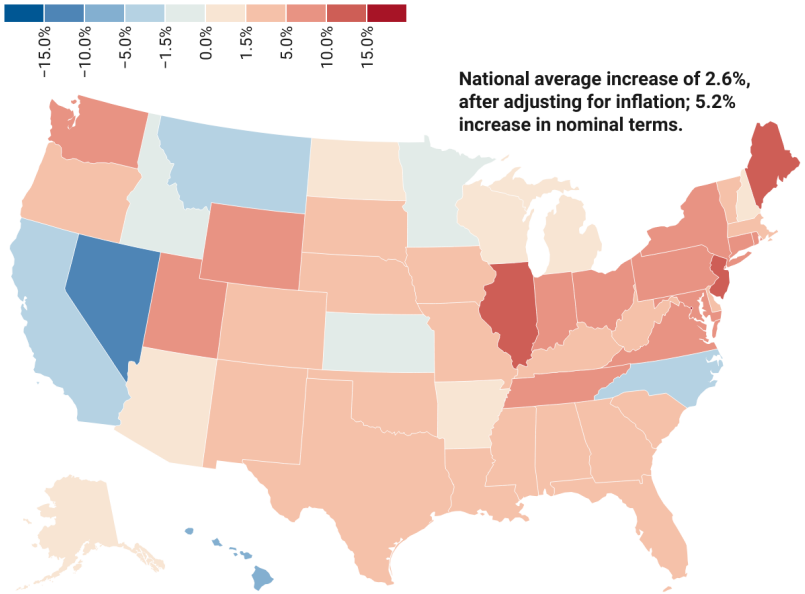
2025 & beyond

Retail price increases over the last year have outpaced inflation nationally and in a growing number of states

Prominent drivers for YoY price increases: fuel and wholesale power prices; inflation & hardening of distribution assets; capacity prices; transmission costs; storm recovery costs

Percentage Change in State Retail Electricity Prices: Average Jan-Sept 2025 vs. Jan-Sept 2024

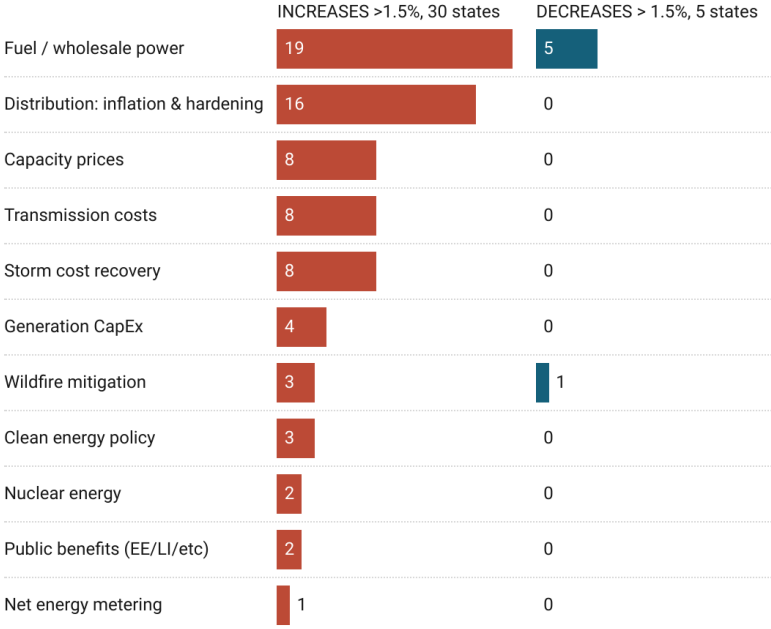
Percentage change, adjusted for inflation in 2024$



Source: EIA • Created with Datawrapper

Primary Drivers of Price Changes from 2024 to 2025

Stated reasons for price changes from July 2024 YTD to July 2025 YTD, for those states with average increases or decreases of >1.5%, after adjusting for inflation.

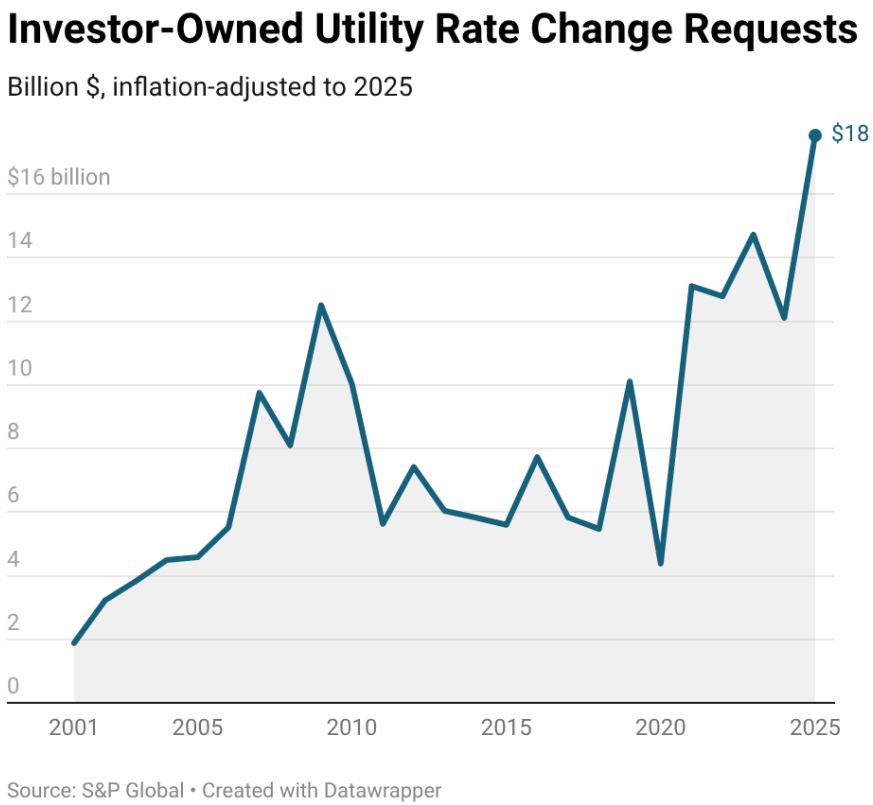


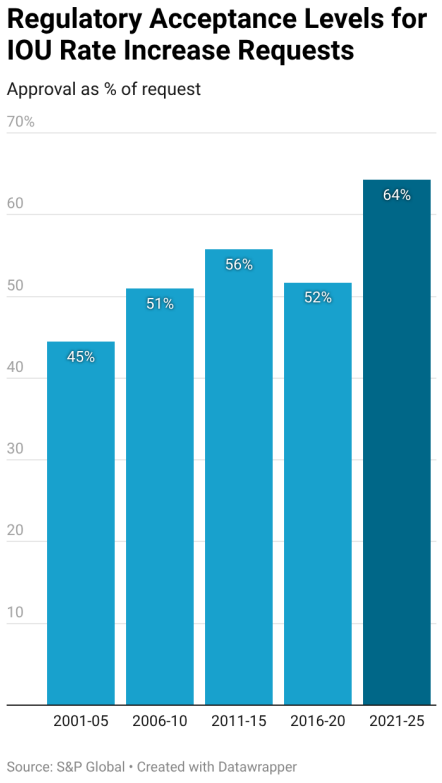
Source: LBNL • Created with Datawrapper

The few states that experienced larger reductions in inflation-adjusted prices did so via lower fuel prices (sometimes from delayed reductions after increase from Ukraine-Russia war).

Note: year-over-year trends are subject to various state ratemaking idiosyncrasies; trends and drivers reported here are therefore, to a degree, unstable.

IOU rate increase requests in 2025 were higher than experienced in decades, suggesting continued price increases; acceptance levels have been high





Notes: (1) Source: S&P Global, LBNL Analysis; (2) Rate case sample includes all "major" rate cases that impact base rates and would result in a rate change of at least $5 million, inclusive of limited issue rider cases. Fuel cost changes and rate riders are partially but not fully captured.

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