



Rising Residential Electric Prices: The View from EIA

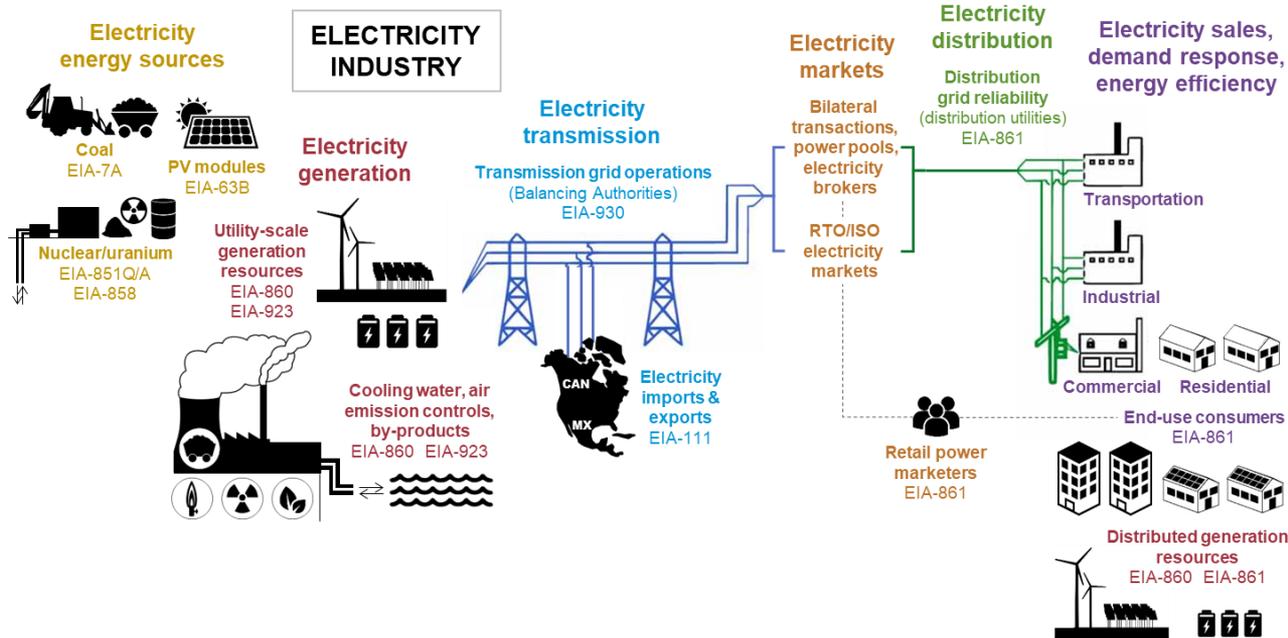
*National Energy Assistance Directors Association
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September 17, 2024 | Memphis, TN*

Agenda and Objective

- **Objective:** To provide information of the state of retail residential electricity prices in the US., factors that may impact these prices, and the price outlook for the next couple of years.
- **Agenda:**
 1. Collection process of EIA data
 2. EIA Residential electricity data
 3. Factors impacting EIA data
 4. Future outlook of prices

Overview of EIA's Electricity Data Collection

EIA publishes data on (parts of) the entire Electricity Supply Chain



Electricity Distribution: EIA-861 Collection Process

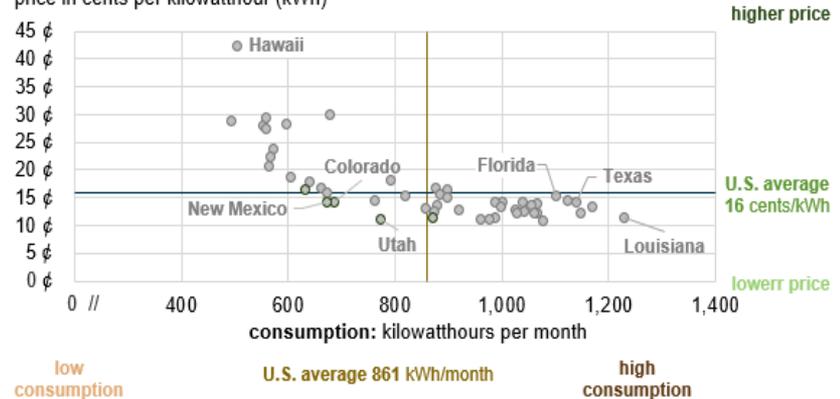
- Purpose:
 - The Energy Information Administration (EIA) Form EIA-861, Annual Electric Power Industry Report, collects information on the status of electric power industry participants involved in the generation, transmission, distribution, and sale of electric energy in the United States and its territories.
 - This report is mandatory under Title 15 U.S.C. §772(b).
- Collection process:
 - Annual Survey, collection starts in January, finalized and published in October
 - 3,400 respondents all utilities with ultimate customers
 - Monthly Survey, preliminary data is published and collected monthly, finalized in October
 - Sample of annual utilities, over 80% of sales, non-sampled are estimate
 - EIA-861 survey collects information on the sales, revenue, and customer count (among other things) to ultimate customers.

Residential Retail Electricity Data

- Price and Consumption can all be derived from Sales, Revenue and Customers
 - Price = Revenue / Sales
 - US Avg 16 cents per kWh
 - Consumption = Sales / Customer
 - US Avg 861 kWh per month

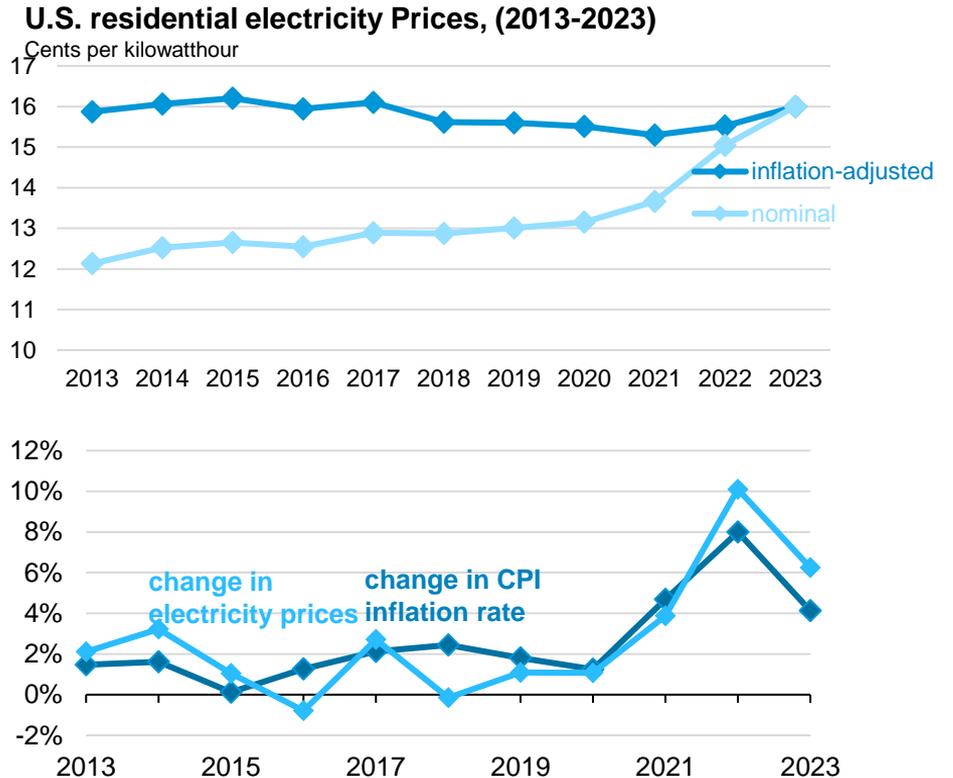
2023 Avg. Consumption kWh/Month		2023 Avg. Price Cents/kWh	
Louisiana	1,230	Hawaii	42.36
Mississippi	1,171	Connecticut	29.86
US	861	US	16.00
Hawaii	503	Washington	10.98
California	494	North Dakota	10.97

Monthly average residential electricity prices and consumption in 2023
price in cents per kilowatthour (kWh)



Residential Retail Electricity Data

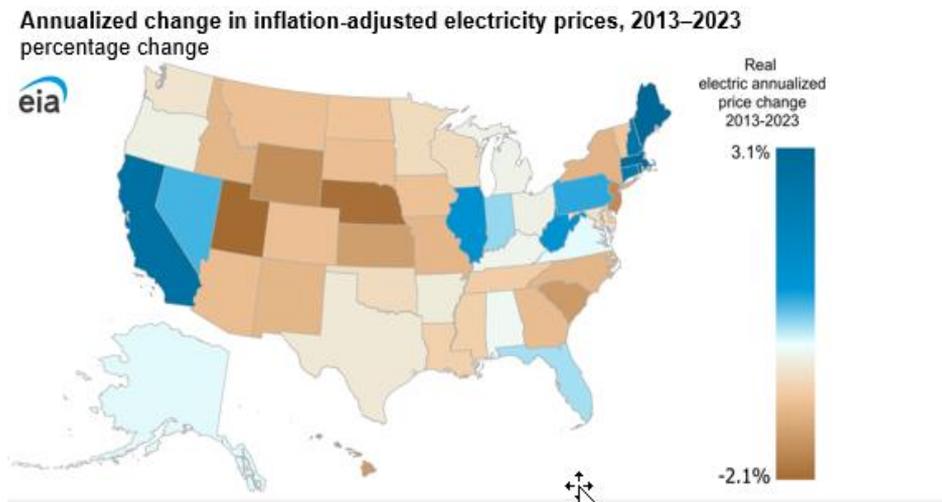
- At a national level, nominal Prices have increased from 12 cents to 16 cents from 2013 to 2023
- Price increases track with inflation (real prices are especially flat)
- Public utilities commissions often evaluate cost increases against increases in the Consumer Price Index (CPI) as one potential justification for increasing revenue requirements.



Residential Retail Electricity Data

- Thirty-five states are within +/- 1.0% of real price change over the past decade
- New England and California have seen the largest rate real price increases while the Mid-Continent states have seen the largest decreases.

Real Price Change 2013 - 2023	
New England	3.1%
California	3.0%
US	0.1%
Nebraska	2.0%
Utah	2.1%

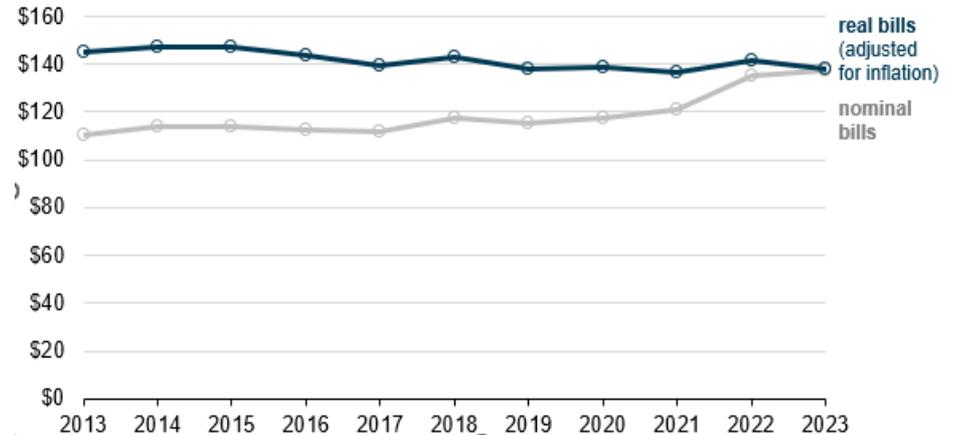


Residential Retail Electricity Data

- Monthly Cost can all be derived from Price and Consumption
 - Monthly Cost = Price * Consumption
- Similar to prices, the increase in US average monthly costs are in line with inflation

2023 Average Monthly Cost	
Hawaii	\$213
Connecticut	\$203
US	\$138
New Mexico	\$96
Utah	\$87

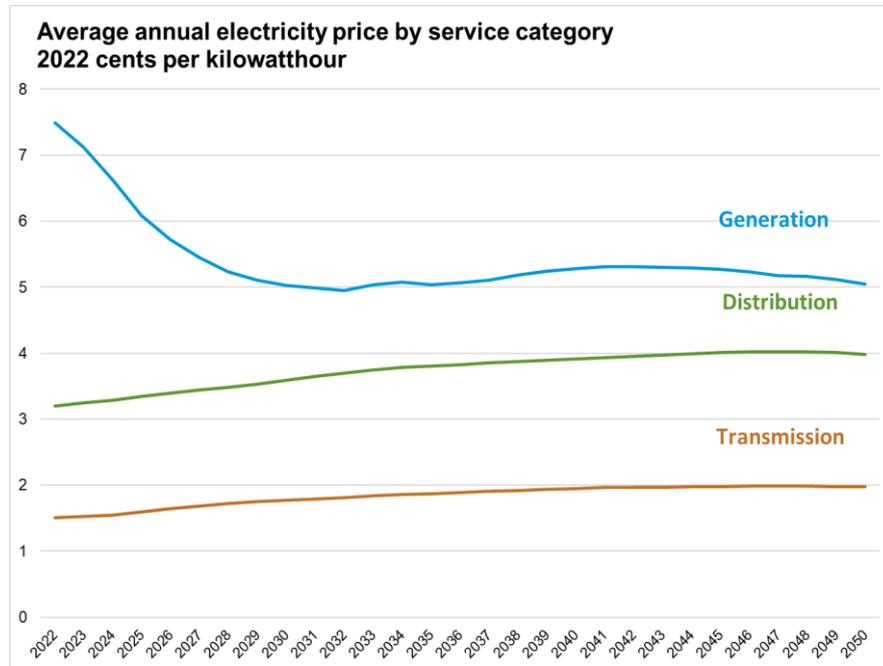
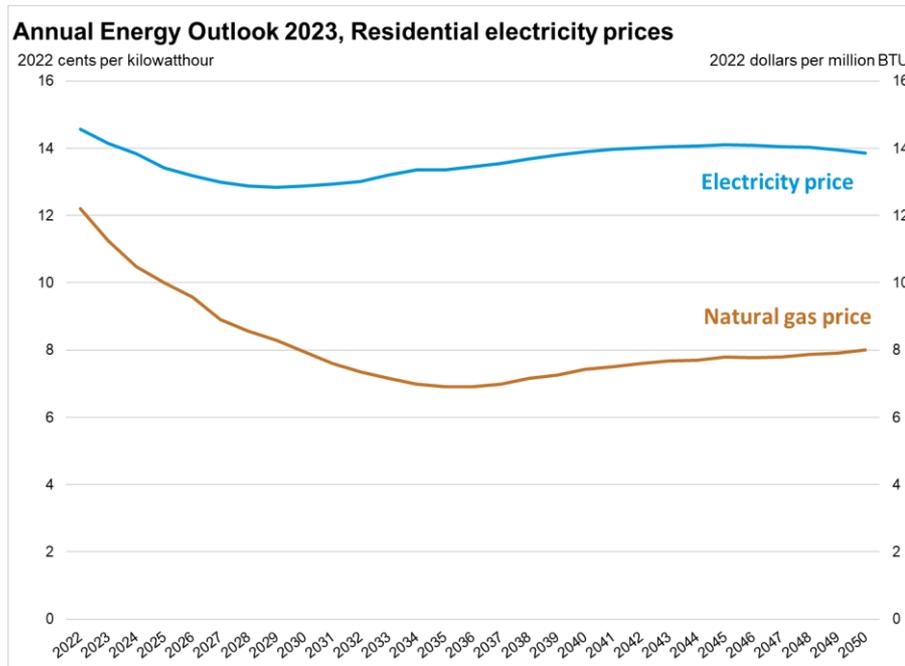
Annual average monthly cost for U.S. residential electricity bills (2013–2023)
dollars per month



Structural Factors impacting EIA data

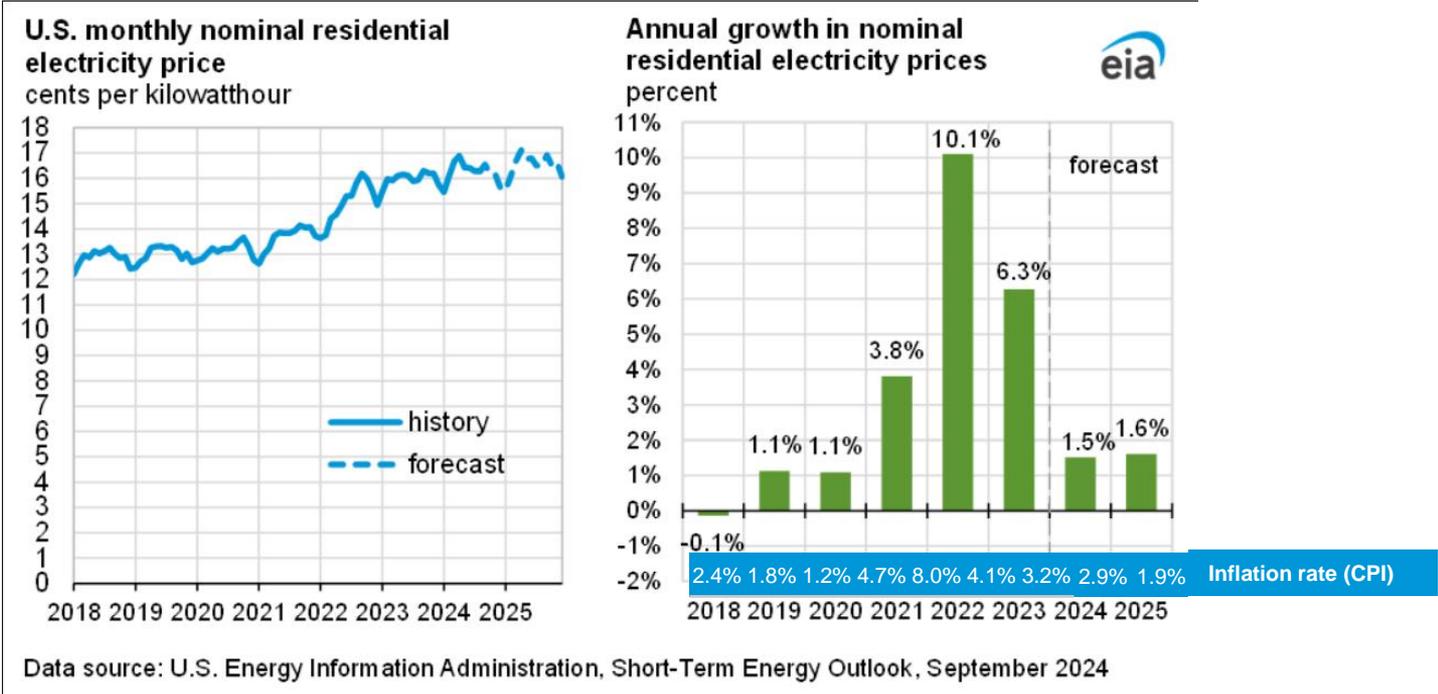
- Revenue and sales are aggregate measures, not detailed by changes within rate classes.
- Balkanized rate structures complicated data collection within sector classes
- Customer classification for sectors requires respondent outreach
 - Survey instructions ask for customers to be grouped into NAAICS codes, but distribution utilities often use interconnection size in tariff development.

Future outlook of prices, long-term energy outlook



EIA Annual Energy Outlook 2023

Future outlook of prices, short-term energy outlook



EIA Short-Term Energy Outlook, September 2024

Trend toward electric utility rate increases in regulated markets continues in 2024

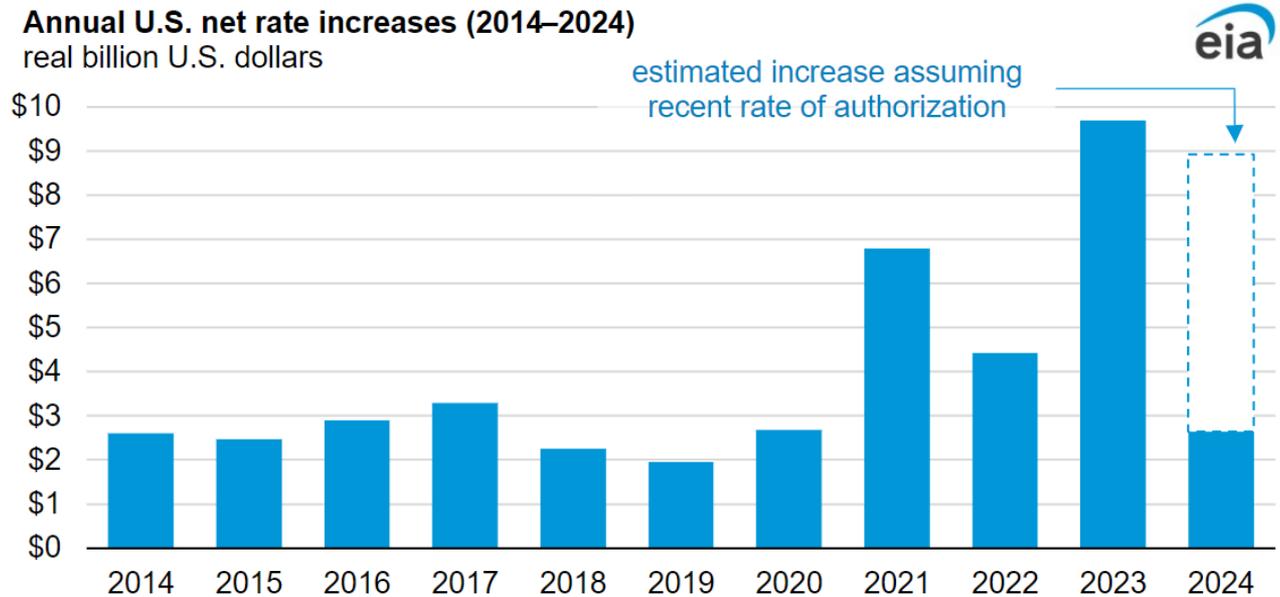
2023: *More than one-third (\$3.5 billion) for California wildfire protection including [undergrounding wires](#), vegetation management, and several other tracked wildfire-related accounts.

*Illinois: \$759 million rate increase to ComEd for grid infrastructure development necessary to comply with the Illinois [Climate and Equitable Jobs Act \(CEJA\)](#), [Public Act 102-0662](#), goal to transition to 100% clean energy by 2050.

*New York: \$442 million rate increase to ConEd [for T&D investment](#) to prepare for weatherization and to meet the [state's clean energy goals](#)

Annual U.S. net rate increases (2014–2024)

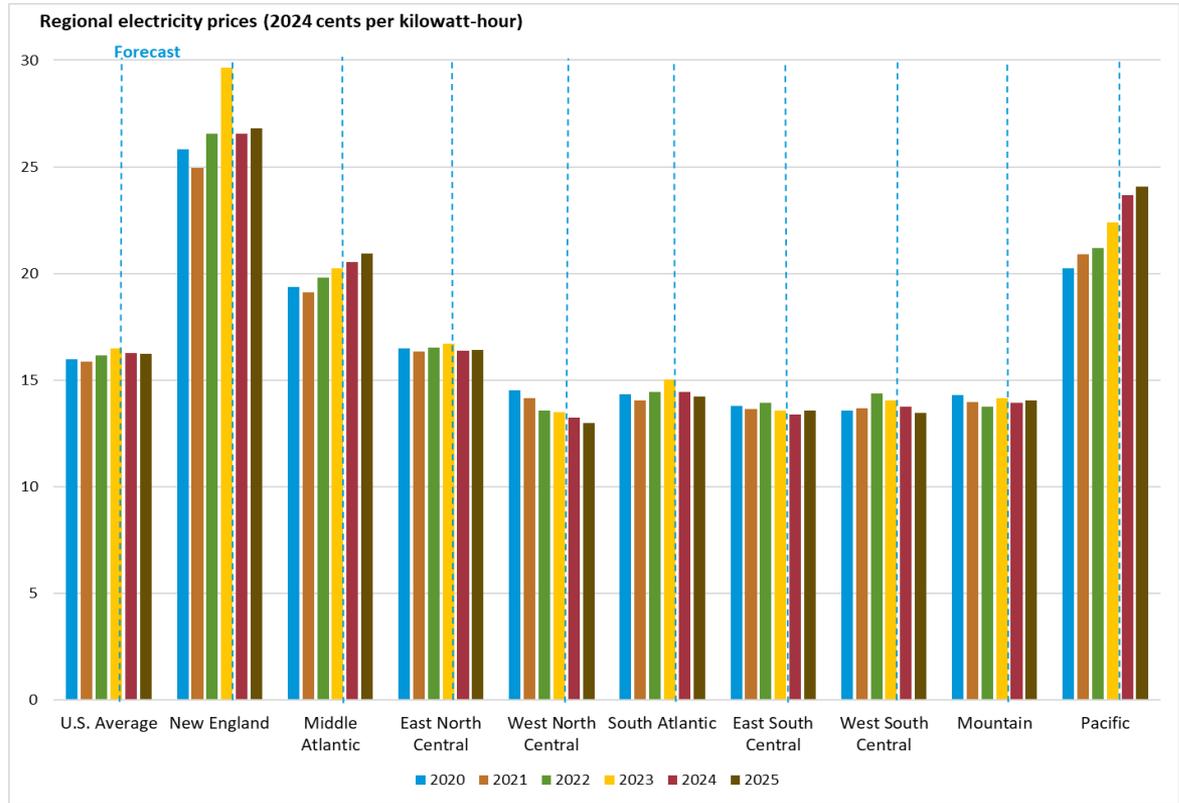
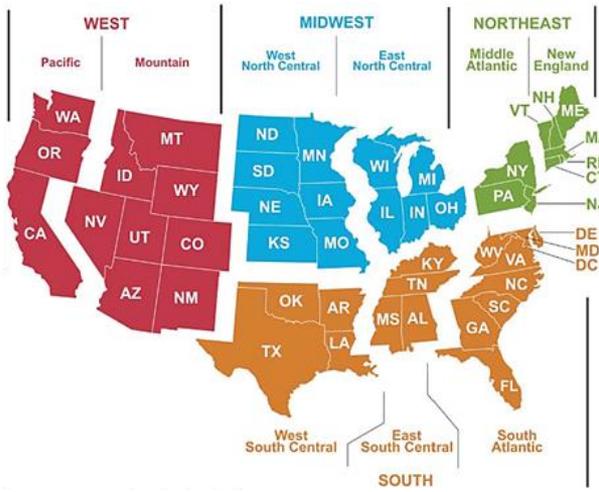
real billion U.S. dollars



Data source: S&P Capital IQ rate case database
Note: Real=adjusted for inflation to 2023 dollars

Source: EIA, <https://www.eia.gov/todayinenergy/detail.php?id=63024>

Regional short-term electricity residential price forecast



Short-Term Energy Outlook, September 2024

For more information

U.S. Energy Information Administration home page | www.eia.gov

EIA-861 Detail Data Files | <https://www.eia.gov/electricity/data/eia861>

Sales, Revenue, Price | https://www.eia.gov/electricity/sales_revenue_price

Electric Power Monthly | www.eia.gov/mer

State Energy Profiles | www.eia.gov/state

Annual Energy Outlook | www.eia.gov/aeo

Short-Term Energy Outlook | www.eia.gov/steo

Short-Term Data Browser | <https://www.eia.gov/outlooks/steo/data/browser>

Electricity Data Browser | <https://www.eia.gov/electricity/data/browser>

Today in Energy | www.eia.gov/todayinenergy