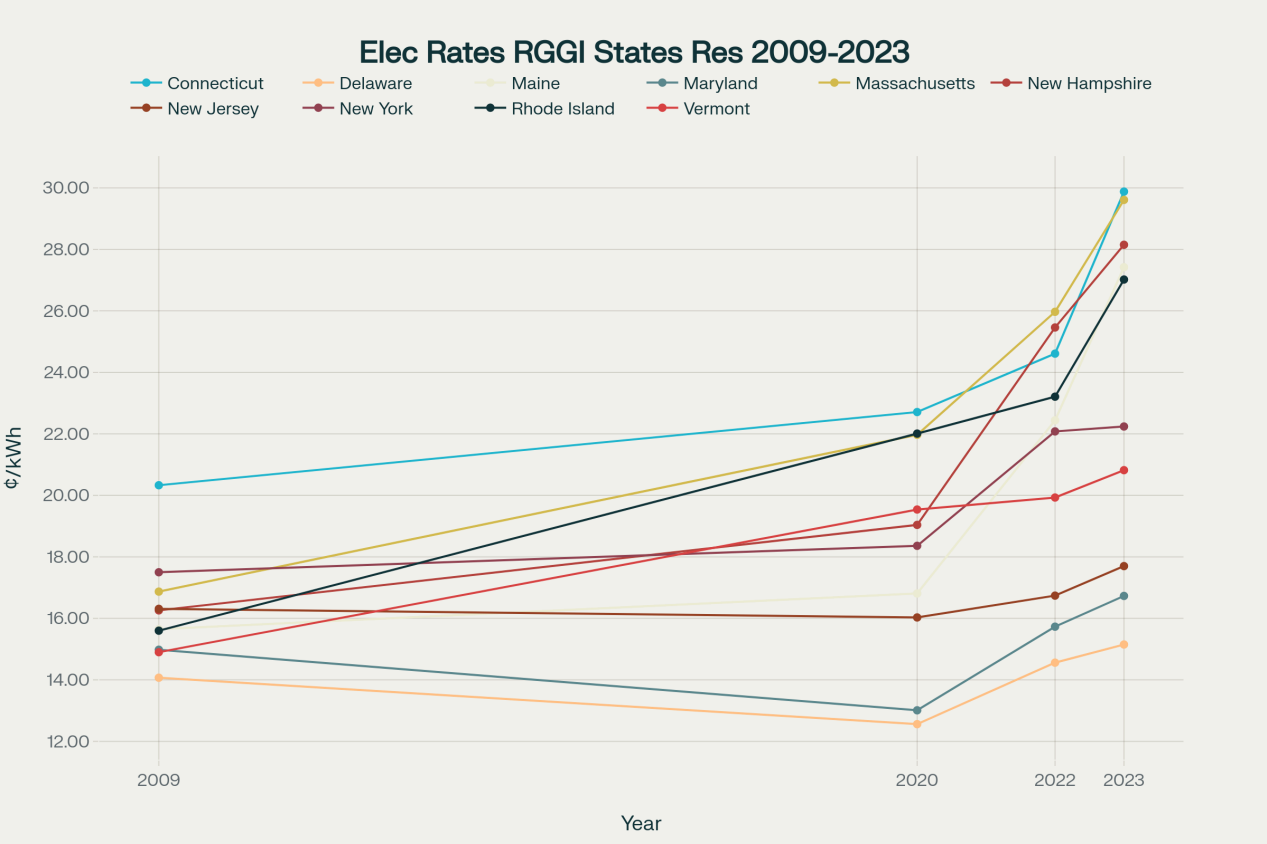
perplexity

Electricity Rates in RGGI States (2009-2023)

Based on comprehensive analysis of U.S. Energy Information Administration (EIA) data, here are the **electricity rates for residential, commercial, and industrial sectors** across all ten Regional Greenhouse Gas Initiative (RGGI) states for the years 2009, 2020, 2022, and 2023.



Electricity rates in RGGI states by sector from 2009 to 2023, showing different trends across residential, commercial, and industrial customers.

Key Findings

New England states experienced the highest electricity rates across all sectors and years, with Connecticut and Massachusetts leading the region. **Connecticut had the highest residential rates** by 2023 at 29.88¢/kWh, while **Rhode Island had the highest industrial rates** at 18.98¢/kWh[1].

Delaware and Maryland generally maintained the lowest electricity rates among RGGI states, with Delaware's industrial rates being particularly competitive at 8.46¢/kWh in 2023[1].

State-by-State Electricity Rates

Connecticut

- **2009**: Residential: 20.33¢/kWh, Commercial: 16.86¢/kWh, Industrial: 14.92¢/kWh[2]
- **2020**: Residential: 22.71¢/kWh, Commercial: 16.58¢/kWh, Industrial: 13.07¢/kWh[3]
- **2022**: Residential: 24.61¢/kWh, Commercial: 18.54¢/kWh, Industrial: 15.07¢/kWh[1]
- **2023**: Residential: 29.88¢/kWh, Commercial: 19.99¢/kWh, Industrial: 15.69¢/kWh[1]

Delaware

- **2009**: Residential: 14.07¢/kWh, Commercial: 11.98¢/kWh, Industrial: 9.34¢/kWh[2]
- **2020**: Residential: 12.56¢/kWh, Commercial: 9.18¢/kWh, Industrial: 6.70¢/kWh[3]
- **2022**: Residential: 14.56¢/kWh, Commercial: 11.22¢/kWh, Industrial: 8.22¢/kWh[1]
- **2023**: Residential: 15.15¢/kWh, Commercial: 11.64¢/kWh, Industrial: 8.46¢/kWh[1]

Maine

- **2009**: Residential: 15.65¢/kWh, Commercial: 12.55¢/kWh, Industrial: 9.95¢/kWh[2]
- **2020**: Residential: 16.81¢/kWh, Commercial: 12.56¢/kWh, Industrial: 8.86¢/kWh[3]
- **2022**: Residential: 22.44¢/kWh, Commercial: 15.40¢/kWh, Industrial: 11.03¢/kWh[1]
- **2023**: Residential: 27.42¢/kWh, Commercial: 17.88¢/kWh, Industrial: 12.30¢/kWh[1]

Maryland

- **2009**: Residential: 14.98¢/kWh, Commercial: 11.97¢/kWh, Industrial: 9.92¢/kWh[2]
- **2020**: Residential: 13.01¢/kWh, Commercial: 9.72¢/kWh, Industrial: 7.81¢/kWh[3]
- **2022**: Residential: 15.73¢/kWh, Commercial: 11.93¢/kWh, Industrial: 9.09¢/kWh[1]
- **2023**: Residential: 16.73¢/kWh, Commercial: 12.52¢/kWh, Industrial: 9.57¢/kWh[1]

Massachusetts

- **2009**: Residential: 16.87¢/kWh, Commercial: 15.37¢/kWh, Industrial: 14.08¢/kWh[2]
- **2020**: Residential: 21.97¢/kWh, Commercial: 16.03¢/kWh, Industrial: 14.51¢/kWh[3]
- **2022**: Residential: 25.97¢/kWh, Commercial: 18.67¢/kWh, Industrial: 17.06¢/kWh[1]
- **2023**: Residential: 29.61¢/kWh, Commercial: 19.62¢/kWh, Industrial: 17.88¢/kWh[1]

New Hampshire

- **2009**: Residential: 16.26¢/kWh, Commercial: 14.55¢/kWh, Industrial: 13.83¢/kWh[2]
- **2020**: Residential: 19.04¢/kWh, Commercial: 15.41¢/kWh, Industrial: 13.11¢/kWh[3]
- **2022**: Residential: 25.46¢/kWh, Commercial: 18.69¢/kWh, Industrial: 15.15¢/kWh[1]

- **2023**: Residential: 28.15¢/kWh, Commercial: 20.40¢/kWh, Industrial: 15.76¢/kWh[1]

New Jersey

- **2009**: Residential: 16.31¢/kWh, Commercial: 13.83¢/kWh, Industrial: 11.81¢/kWh[2]
- **2020**: Residential: 16.03¢/kWh, Commercial: 12.35¢/kWh, Industrial: 10.01¢/kWh[3]
- **2022**: Residential: 16.74¢/kWh, Commercial: 13.75¢/kWh, Industrial: 12.12¢/kWh[1]
- **2023**: Residential: 17.70¢/kWh, Commercial: 14.00¢/kWh, Industrial: 11.68¢/kWh[1]

New York

- **2009**: Residential: 17.50¢/kWh, Commercial: 15.51¢/kWh, Industrial: 8.98¢/kWh[2]
- **2020**: Residential: 18.36¢/kWh, Commercial: 14.56¢/kWh, Industrial: 5.54¢/kWh[3]
- **2022**: Residential: 22.08¢/kWh, Commercial: 18.19¢/kWh, Industrial: 7.55¢/kWh[1]
- **2023**: Residential: 22.24¢/kWh, Commercial: 18.01¢/kWh, Industrial: 6.87¢/kWh[1]

Rhode Island

- **2009**: Residential: 15.60¢/kWh, Commercial: 13.67¢/kWh, Industrial: 12.25¢/kWh[2]
- **2020**: Residential: 22.01¢/kWh, Commercial: 15.94¢/kWh, Industrial: 15.76¢/kWh[3]
- **2022**: Residential: 23.21¢/kWh, Commercial: 16.23¢/kWh, Industrial: 17.96¢/kWh[1]
- **2023**: Residential: 27.02¢/kWh, Commercial: 17.68¢/kWh, Industrial: 18.98¢/kWh[1]

Vermont

- **2009**: Residential: 14.90¢/kWh, Commercial: 12.93¢/kWh, Industrial: 9.21¢/kWh[2]
- **2020**: Residential: 19.54¢/kWh, Commercial: 16.39¢/kWh, Industrial: 11.20¢/kWh[3]
- **2022**: Residential: 19.93¢/kWh, Commercial: 17.29¢/kWh, Industrial: 11.88¢/kWh[1]
- **2023**: Residential: 20.82¢/kWh, Commercial: 18.00¢/kWh, Industrial: 11.27¢/kWh[1]

Regional Patterns and Trends

Significant Price Increases Post-2020

All RGGI states experienced substantial electricity rate increases between 2020 and 2023, with the most dramatic increases occurring in 2022-2023. This period coincided with higher fossil fuel costs and increased wholesale electricity prices[4].

New England vs. Mid-Atlantic Differences

New England RGGI states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) consistently showed higher electricity rates than **Mid-Atlantic states** (Delaware, Maryland, New Jersey, New York). This regional disparity reflects different energy infrastructure, market structures, and resource availability[1].

Sector-Specific Trends

- **Residential customers** experienced the highest absolute rates and largest increases across all states
- **Industrial customers** generally paid the lowest rates, with New York offering particularly competitive industrial rates
- **Commercial rates** fell between residential and industrial, with more moderate increases over the period

Data Sources and Methodology

This analysis draws from multiple EIA sources including the Electric Power Annual reports, state electricity profiles, and historical pricing data from Forms EIA-861 and EIA-826[5] [3] [1]. All rates represent average retail electricity prices paid by ultimate customers, measured in cents per kilowatt-hour (¢/kWh).

The data reflects the average revenue per kWh for each sector, calculated by dividing total retail electric revenue by corresponding electricity sales in each end-use sector[1].

⁂

1. https://www.energy.gov/sites/default/files/2024-06/024. EIA, Today in Energy (May 31, 2023).pdf
2. https://www.eia.gov/state/seds/data.php?incfile=%2Fstate%2Fseds%2Fsep_prices%2Ftotal%2Fpr_tot_nc.html&sid=VT
3. https://www.eia.gov/electricity/data/state/avgprice_annual.xlsx
4. https://www.sofi.com/cost-of-living-in-vermont/
5. https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_3