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Power Prices Before and After Deregulation: PEPCO, PJM, and Hata-Center Demand

Historical retail electricity price data, PEPCO-region restructuring, PJM capacity costs, and large-load data-center demand pressure.

DC 2001-2025

+181.6%

EIA residential average retail price, nominal.

Maryland 2001-2025

+154.0%

EIA residential average retail price, nominal.

Data centers by 2028

325-580 TWh

DOE/LBNL projected U.S. data-center electricity use.

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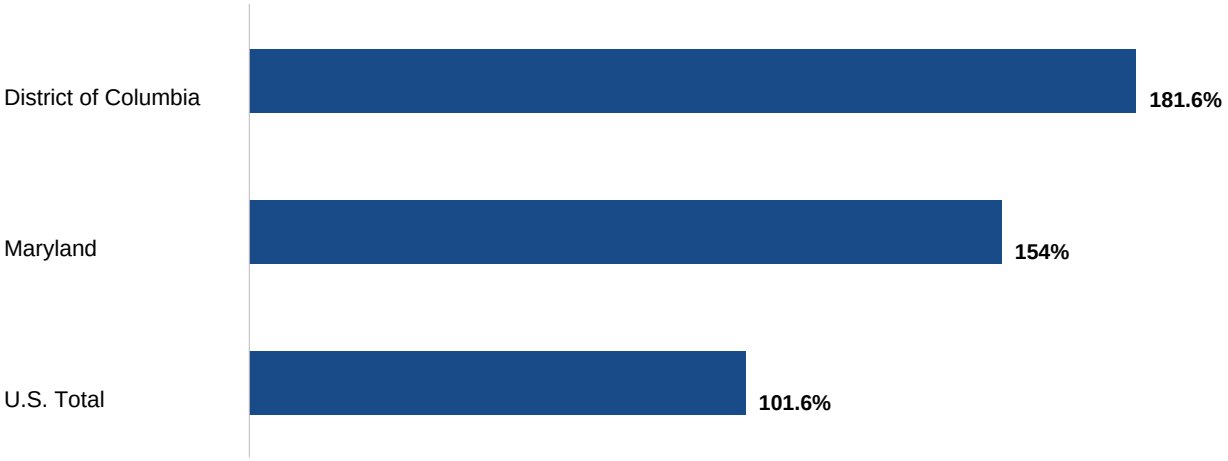
Electric deregulation did not remove the local wires monopoly. It mainly separated supply, distribution, transmission, capacity, taxes, and policy charges. The result is a fragmented system where ordinary customers remain captive to regulated wires while regional supply/capacity costs move through PJM market structures.

- DC residential average retail electricity price rose from 7.79 cents/kWh in 2001 to 21.94 cents/kWh in 2025: 181.6% nominal increase.
- Maryland rose from 7.67 cents/kWh to 19.48 cents/kWh: 154.0% nominal increase.
- U.S. total residential average rose 101.6% over the same period.
- From 2010 to 2024, many retail-choice states rose more than 18%, including DC, Maryland, Pennsylvania, Connecticut, Massachusetts, Illinois, and Ohio.
- DOE/LBNL reports data centers used 58 TWh in 2014, 176 TWh in 2023, and are projected at 325-580 TWh by 2028.
- PJM capacity pricing reports cite jumps from $28.92/MW-day to $269.92/MW-day, later hitting a $333.44/MW-day price cap.

Bottom line

The 18% claim is too small if measured against EIA nominal DC/Maryland residential price data since early-2000s restructuring. The stronger claim is that prices rose roughly 154% in Maryland and 182% in DC through 2025, with data-center load now creating a new PJM capacity and grid-cost pressure channel.

Nominal residential average retail price increase, 2001-2025

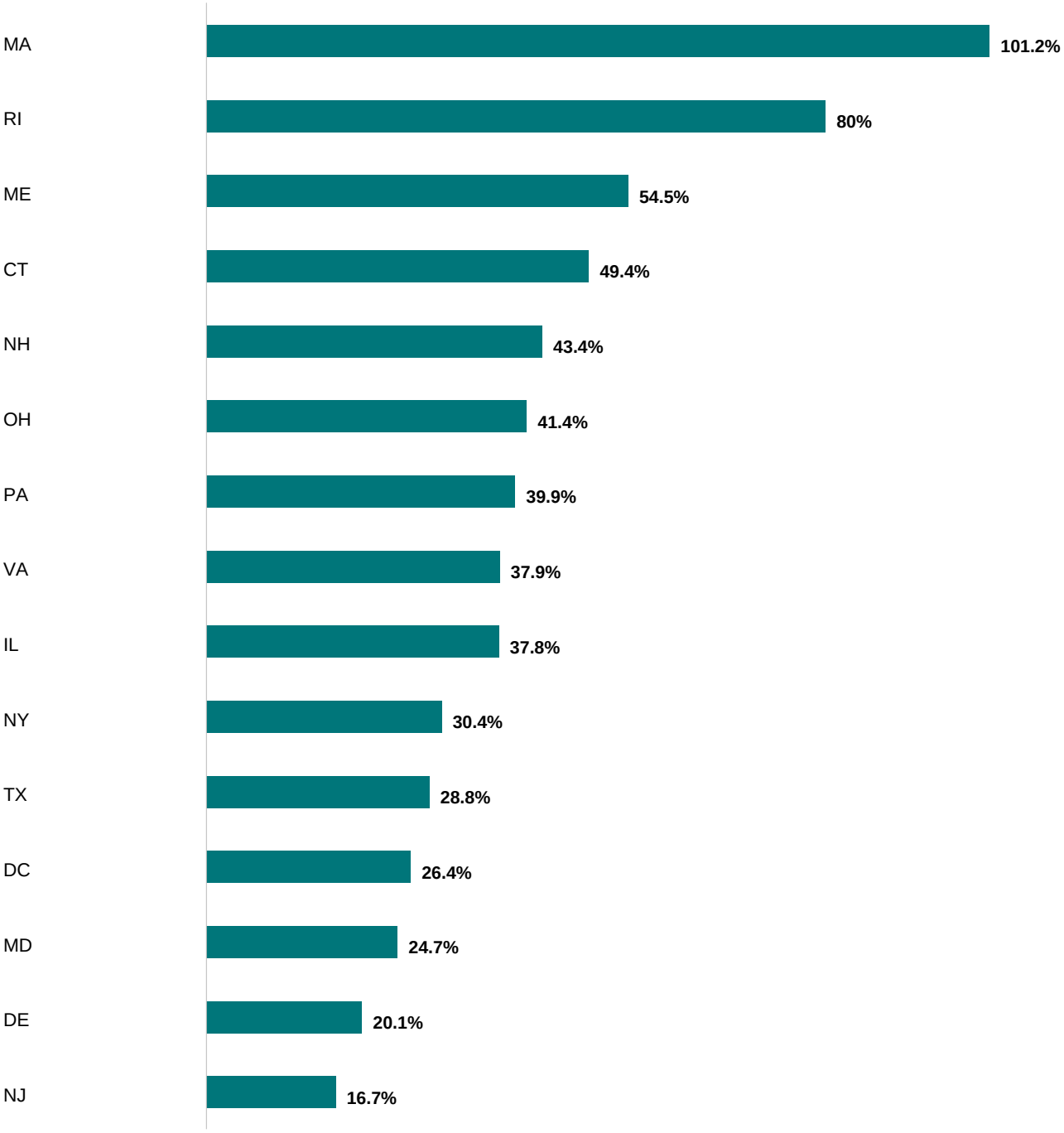


Cents/kWh comparison

Jurisdiction	2001	2025	Increase	Source
District of Columbia	7.79	21.94	**181.6%**	EIA
Maryland	7.67	19.48	**154.0%**	EIA
U.S. Total	8.58	17.30	**101.6%**	EIA

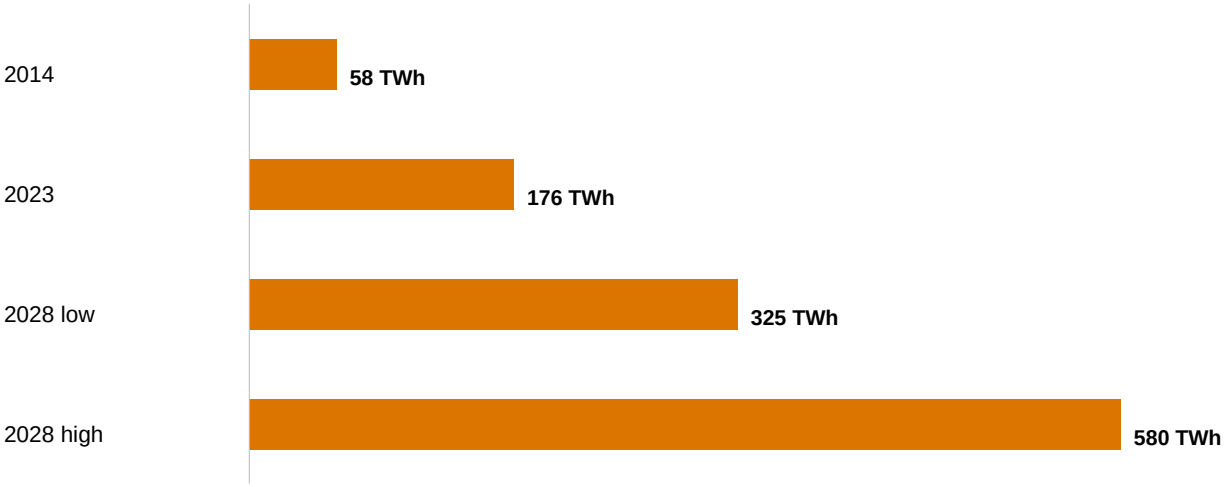
Caveat: these are nominal average retail price changes. They do not by themselves prove single-factor causation. They do prove that the PEPCO-region customer price experience since restructuring is far larger than an 18% nominal increase.

Residential average retail price increase by jurisdiction, 2010-2024

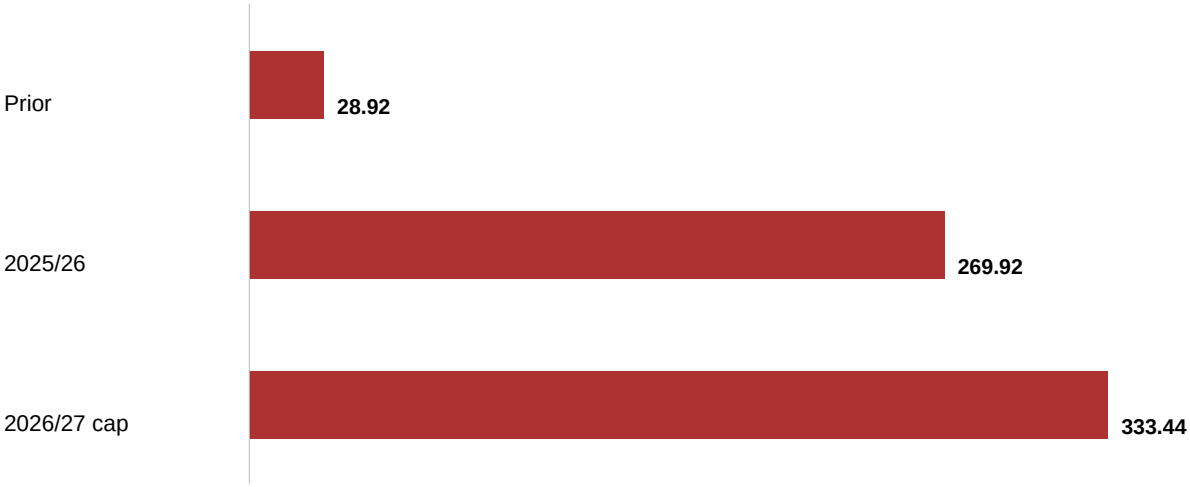


Source: EIA state historical Form 861 workbook. Values are residential average retail price in cents/kWh. These figures include all bill components captured in retail revenue divided by kWh sales.

U.S. data-center electricity use: DOE/LBNL TWh facts



PJM capacity price reports: $/MW-day



Data centers matter because they are large, concentrated, fast-growing loads. In PJM, capacity and transmission costs can be allocated through regional market and tariff structures, creating a path for large-load growth to affect ordinary customers unless cost allocation is strict.

Before restructuring

PEPCO functioned as a regulated, vertically integrated utility: planning, supply, wires, customer service, and rates were tied to the public-utility bargain.

After restructuring

Retail supply choice separated generation/supply from regulated delivery. PEPCO still owns and operates monopoly local distribution wires, but supply, transmission, and capacity costs are connected to wider market structures.

The PJM exposure

PJM administers regional wholesale and capacity markets. PEPCO-area customers can be exposed to PJM capacity and transmission costs through regulated/default service and delivery components.

The data-center issue

Large-load data-center demand can require generation, capacity, substation, and transmission investment. The policy question is whether those costs are directly assigned to data centers or socialized across households and small businesses.

Policy test

Who pays for grid expansion whose marginal driver is hyperscale data-center load: the data centers, or the captive rate base?

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2001 7.79 cents/kWh; 2025 21.94 cents/kWh.

2. EIA Maryland residential annual price series
https://api.eia.gov/v2/seriesid/ELEC.PRICE.MD-RES.A?api_key=DEMO_KEY
2001 7.67 cents/kWh; 2025 19.48 cents/kWh.

3. EIA U.S. residential annual price series
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2001 8.58 cents/kWh; 2025 17.30 cents/kWh.

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5. EIA state electricity data landing page
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Reports $333.44/MW-day price cap in PJM.

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