



Unleashing Intelligence

Structural Rise in Electricity Costs

Navigating Rate Increases with Members and Regulators

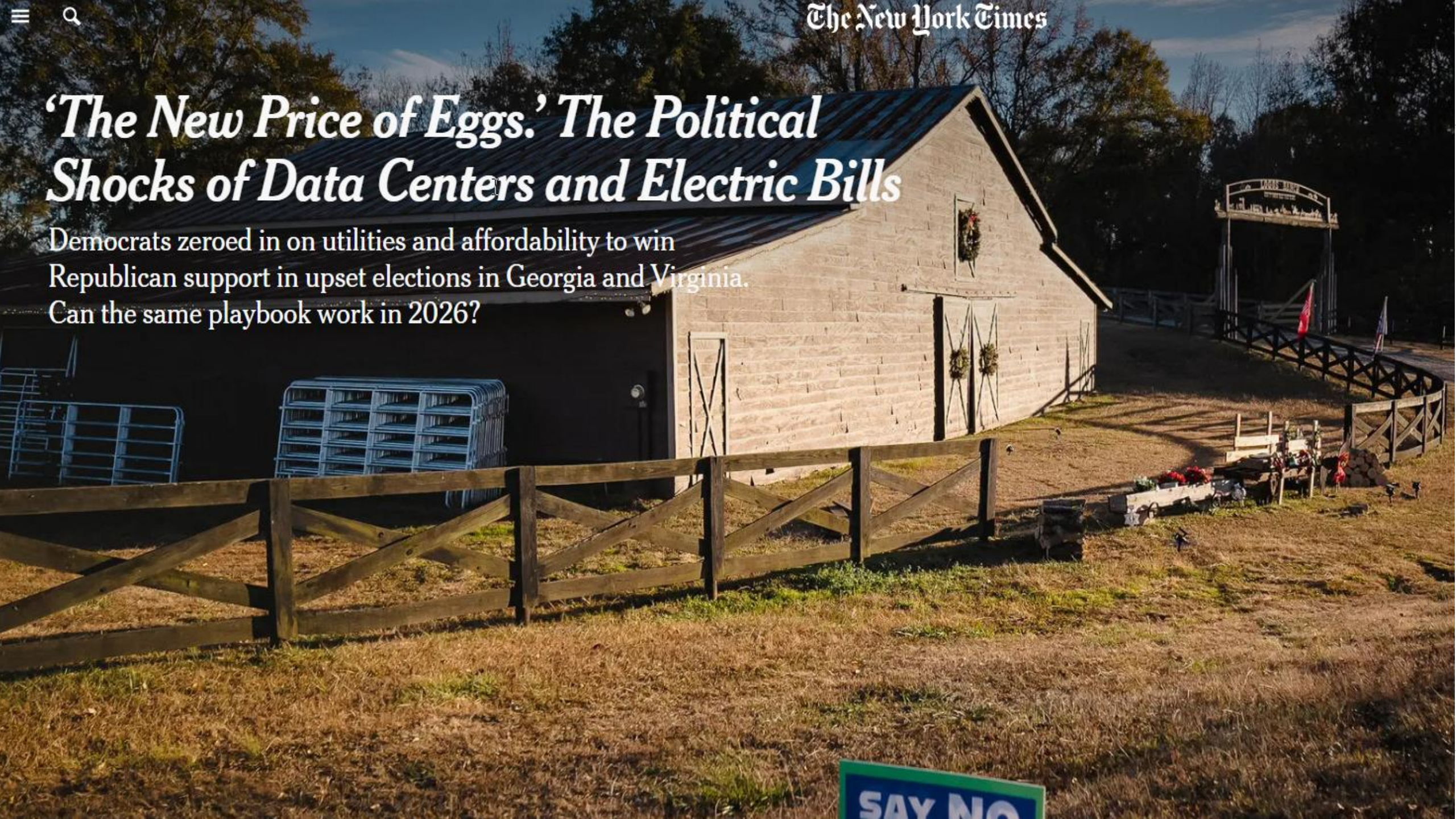
Teri Viswanath

December 9, 2025



'The New Price of Eggs.' The Political Shocks of Data Centers and Electric Bills

Democrats zeroed in on utilities and affordability to win
Republican support in upset elections in Georgia and Virginia.
Can the same playbook work in 2026?



Are we prepared to have “the talk” about rising bills?




Understanding the
rise in residential
electricity bills

How are the structural
components
changing?

How are we
(utilities) mitigating
those costs?

Discussion topics



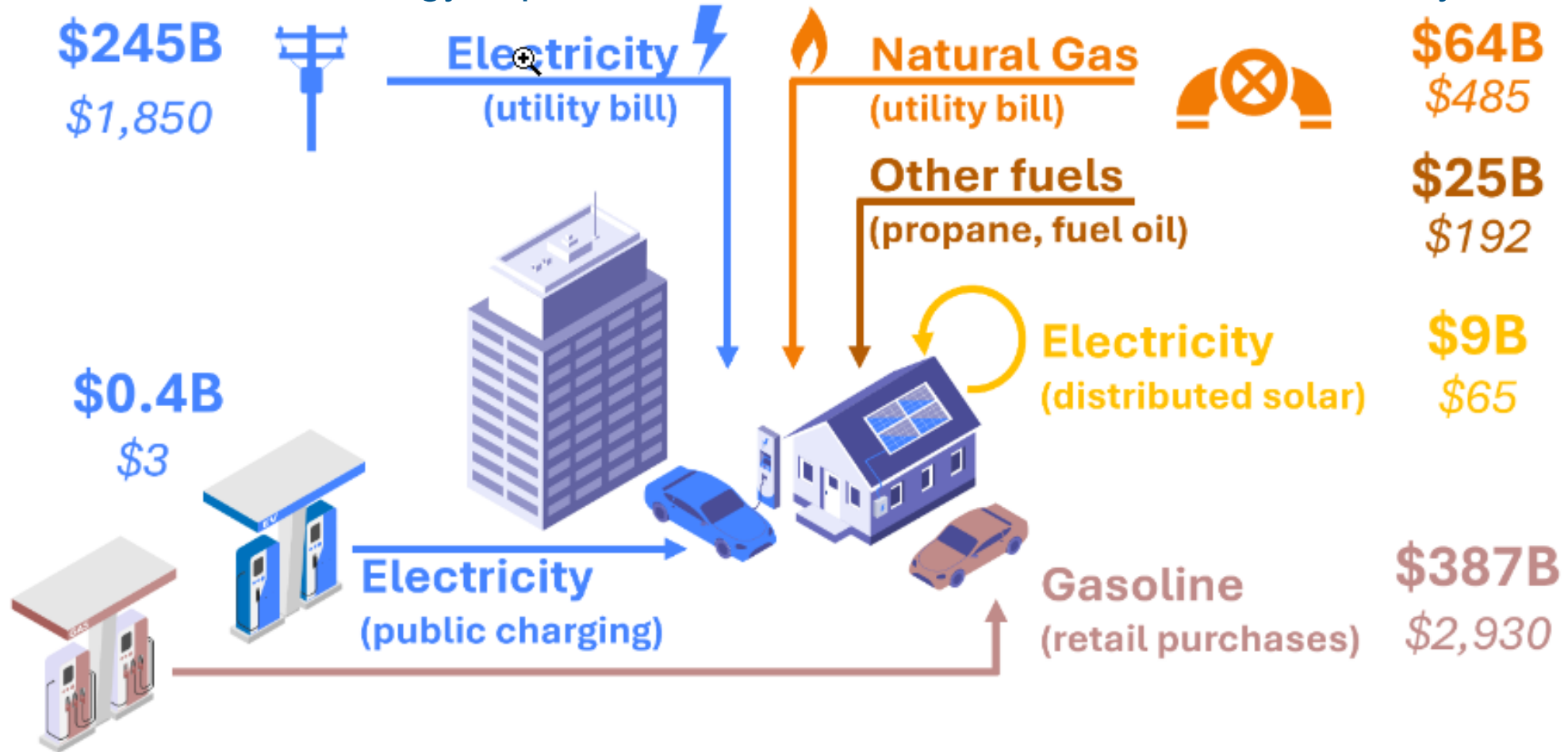
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Current U.S. household energy wallet

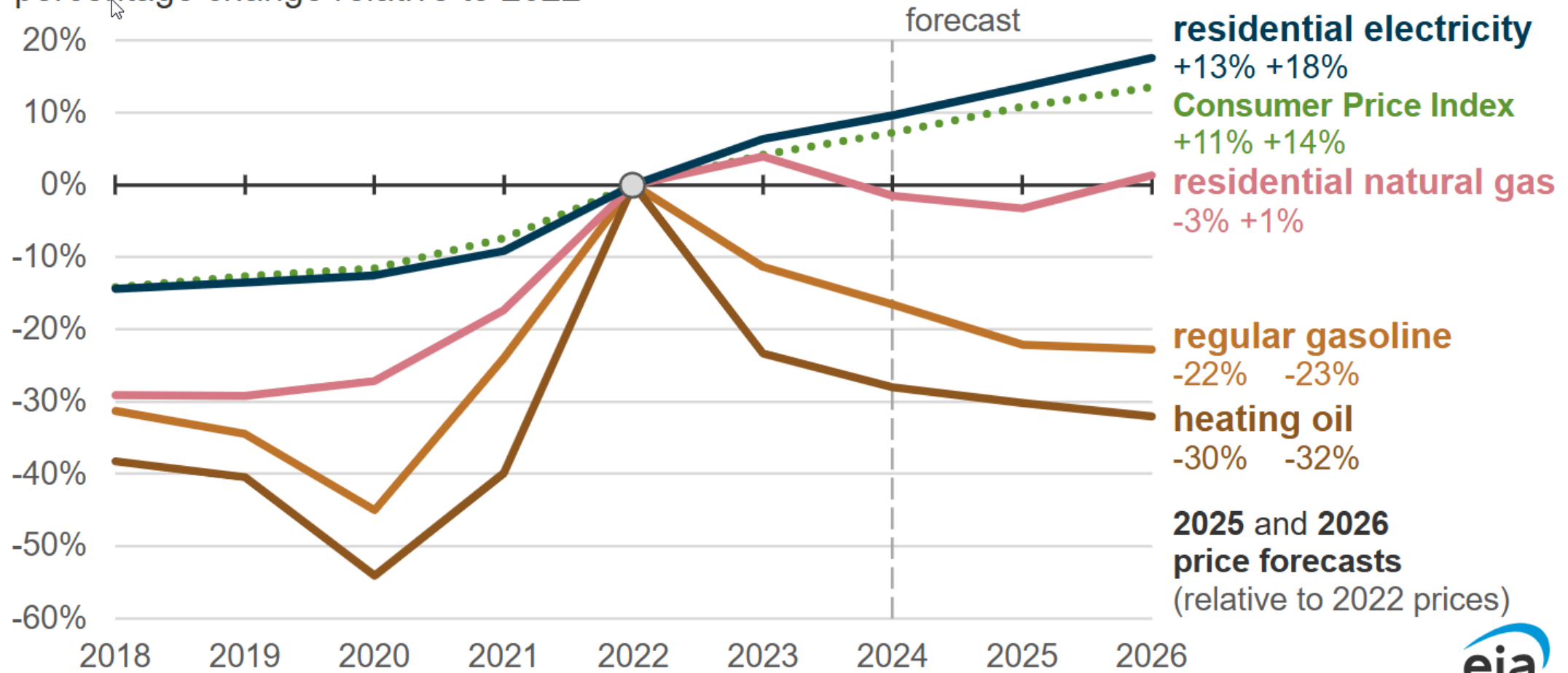
2024 US household energy expenses amounted to \$731B, \$245B was electricity



Electricity prices will continue to outpace inflation

Selected retail energy prices and Consumer Price Index (2018–2026)

percentage change relative to 2022



Household concerns about affordability are rising

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.

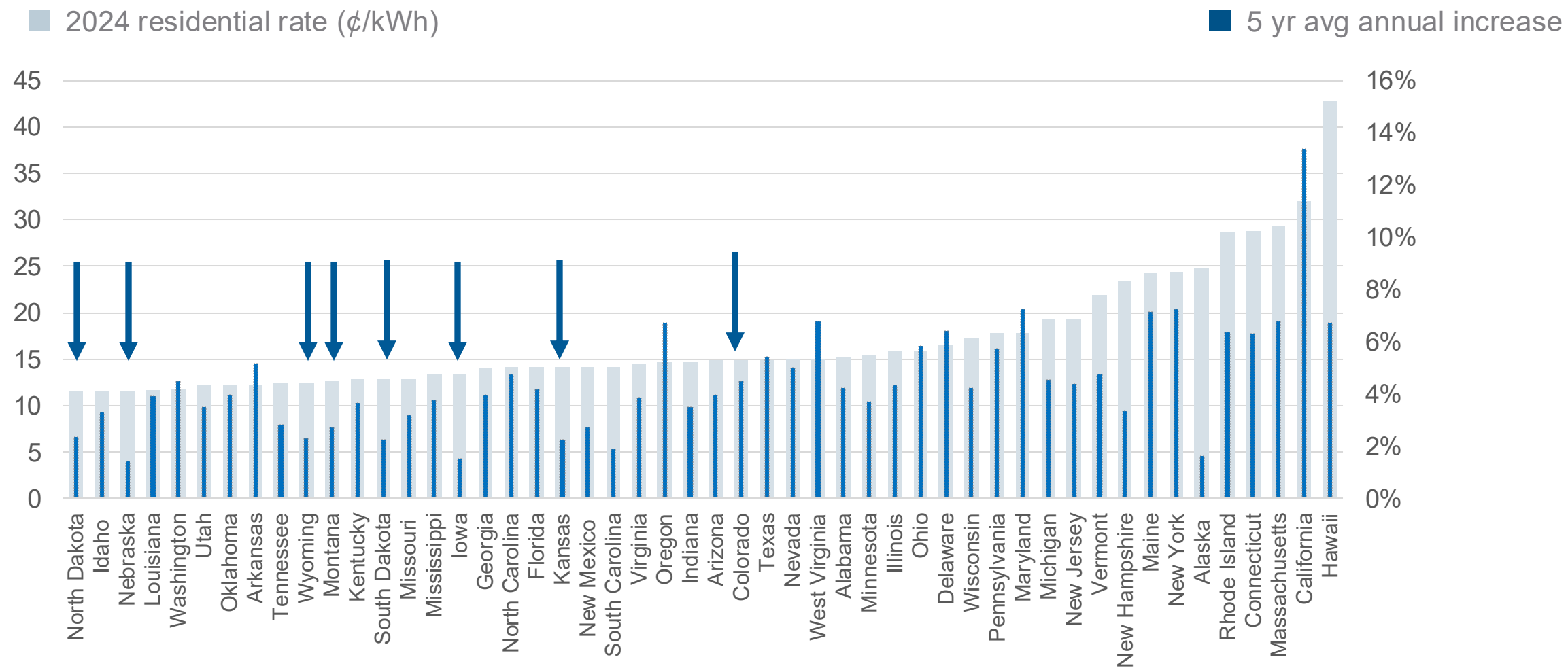
Improved since 2019

- ✓ 17.4M households were behind on their bills in 2024, down from 20M in 2019.

Worse since 2021

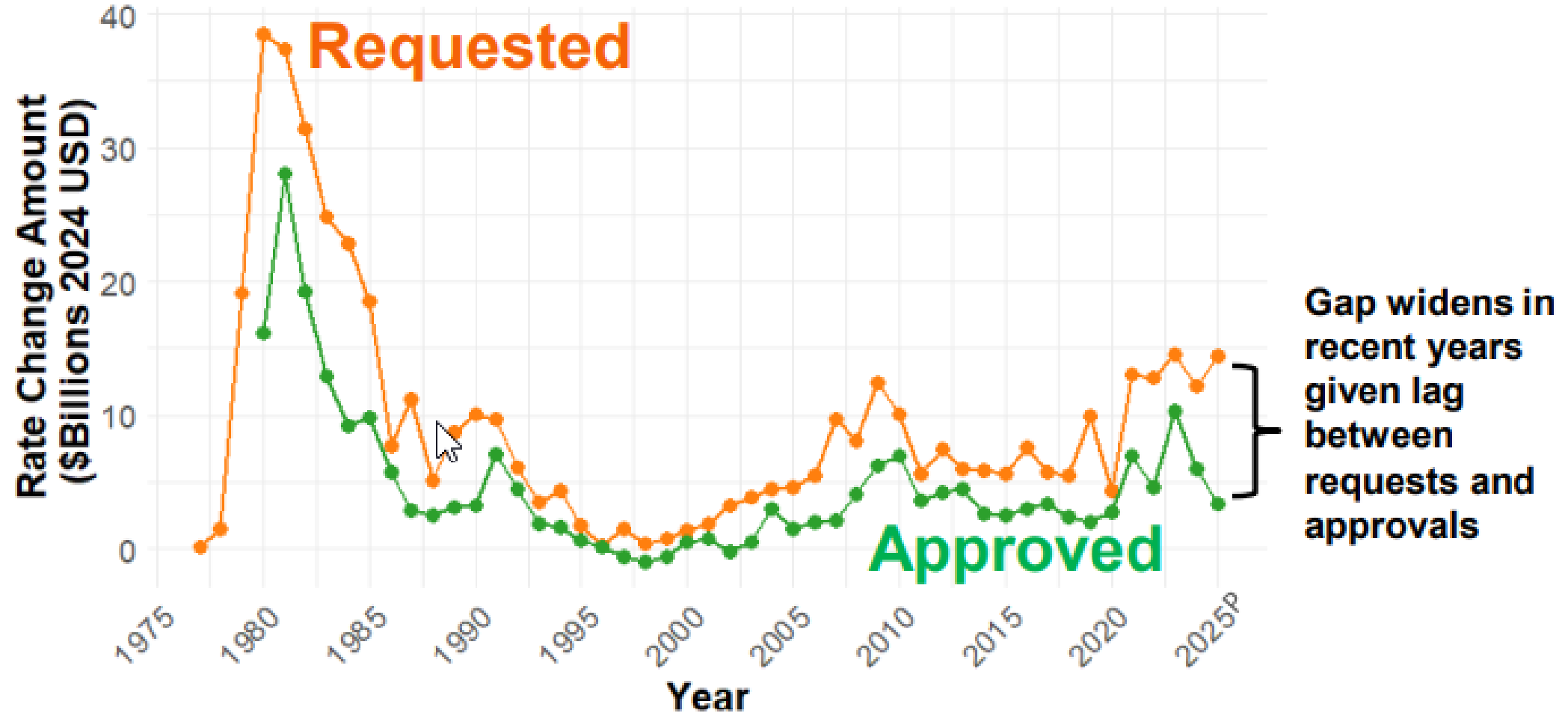
- ✓ 34% of households reduced or forwent necessities to pay an energy bill in 2024, up from 29% in 2021.
- ✓ 22% of households kept their home at an unsafe temperatures in 2024, up from 20% in 2021.
- ✓ 24% of householder were unable to pay their energy bill in full in 2024, up from 20% in 2021

Where does utility bill “unhappiness” come from?



Rate requests higher than at any point since the mid 1980s

Utility rate change requests back to the late 1970s



Discussion topics

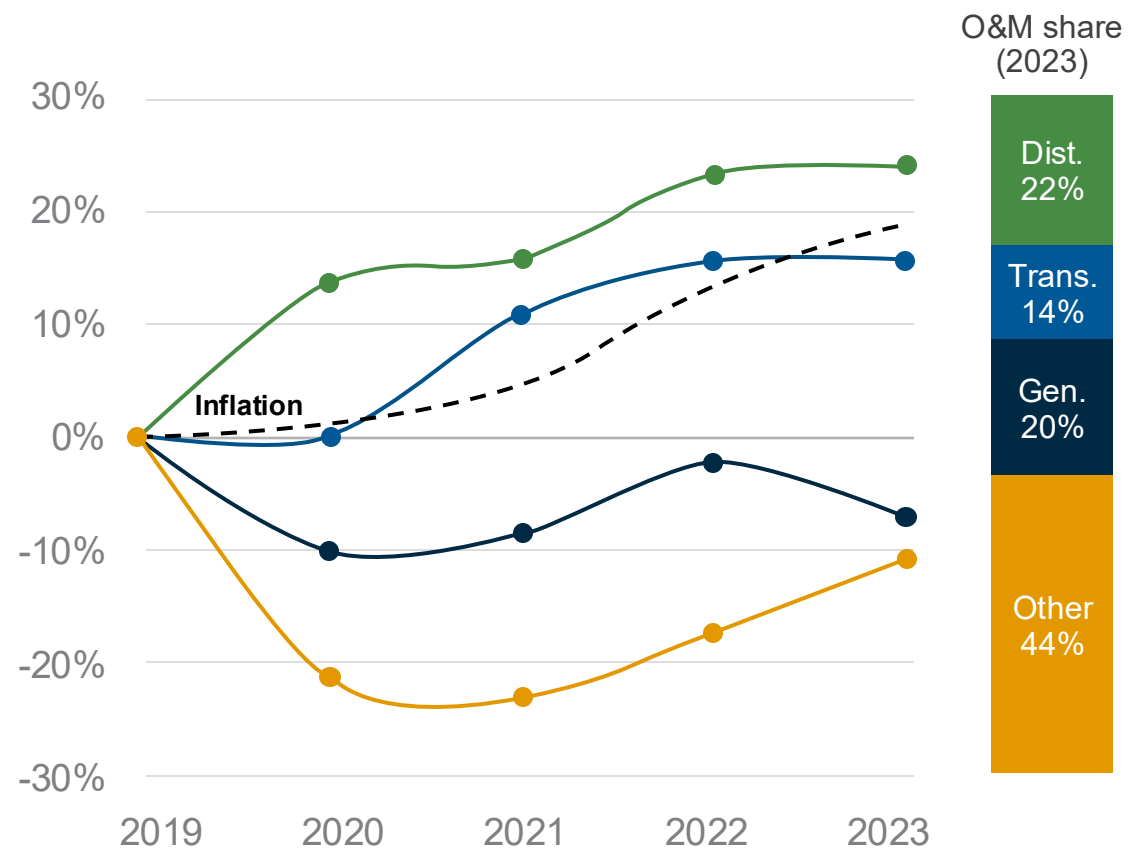
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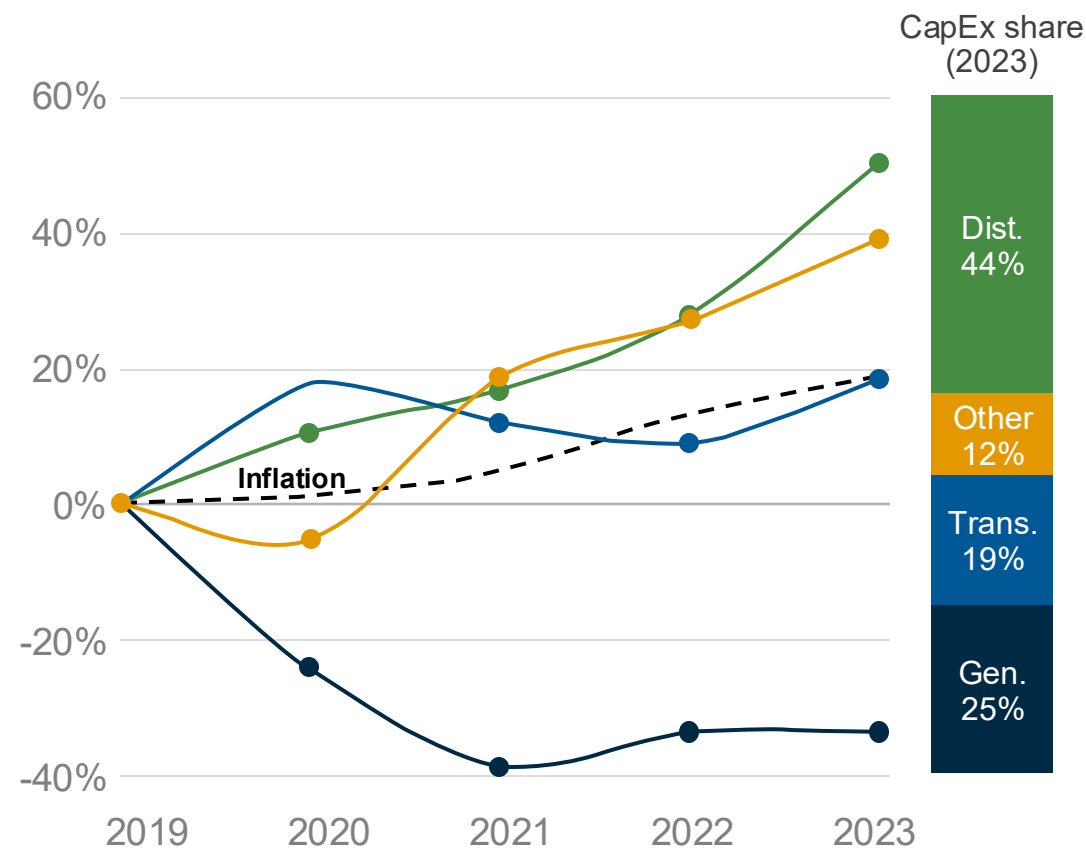
How are we (utilities)
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Rising delivery costs will disproportionately impact co-ops

Changes in operations and maintenance expenses from 2019



Change in annual CapEx from 2019



10 key findings from study of recent electricity price trends

1. National-average retail electricity prices have tracked inflation (until recently)
2. State-level retail electricity price trends vary widely
3. Residential customers + investor-owned utilities experienced greater increases
4. Behind-the-meter solar was associated with higher prices
5. Load growth has tended to depress retail electricity prices in recent years
6. Utility-scale wind and solar are not generally related to recent price increases
7. State renewables portfolio standards are associated with recent price increases
8. Exposure to natural gas price risk increases electricity prices when prices rise
9. Hurricanes, storms, and wildfires have increased retail prices
10. Several other variables appear to have limited statistical explanatory power

About those data centers...DOE New Grid Interconnection Rules



Direct Grid Connection Initiative

New rules are proposed to connect large electrical loads directly to the grid, improving access for major consumers and reducing cost for all consumers.

Addressing Integration Challenges

The initiative aims to overcome integration difficulties for data centers and industrial consumers, ensuring efficient electricity supply.

Bypassing Distribution Systems

Though FERC rules could expedite grid access for major customers, these reforms may compromise local utility investment and state regulatory authority, emphasizing the importance of coordinated planning.

Key provisions of the Fixing Emergency Management for Americans (FEMA) Act of 2025

- **Public Assistance Program Overhaul:** Moves from a reimbursement model to an upfront, engineer-certified cost estimate grant system, accelerating funding and reducing uncertainty for local governments.
- **Block Grants for Small Disasters:** Creates a new block grant program for events causing \$1–10M million in damage, with expedited funding and a minimum 75% federal cost share.
- **Expedited Emergency Work Funding:** FEMA must provide up to 25% of the federal share for emergency work within 10 days of a disaster declaration.
- **Simplified Closeouts:** Smaller projects may close automatically once funds are disbursed; larger projects have defined review timelines.
- **Opportunities**
 - Predictable cash flow and early cost-share and maintains current federal cost share of 75%.
- **Challenges**
 - Estimate accuracy is critical; **cost overruns are non-reimbursable** absent the one-time adjustment for cost inflation. Jurisdictions must invest in qualified cost estimators and robust change management.
 - **New accountability clocks** – 90-day FEMA obligation, 120-day reimbursement – will compel local data readiness; failure may trigger withholding.

Discussion topics



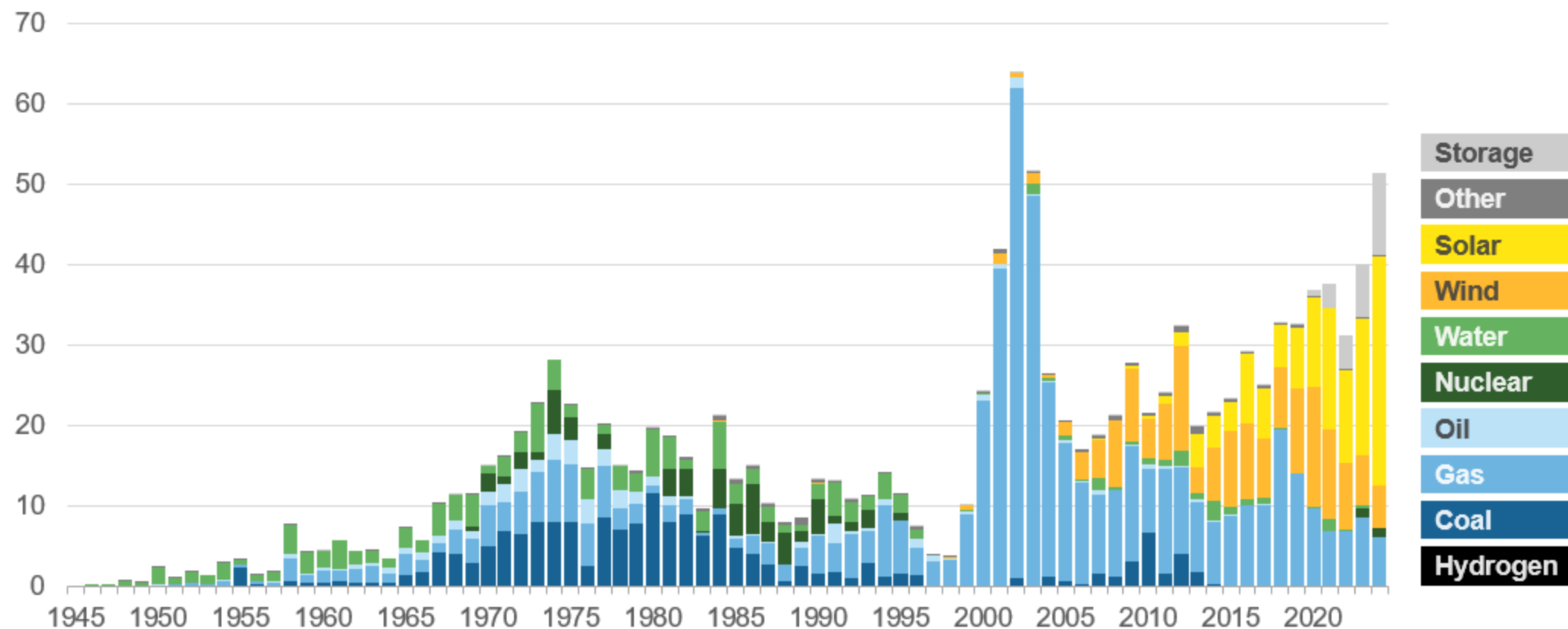
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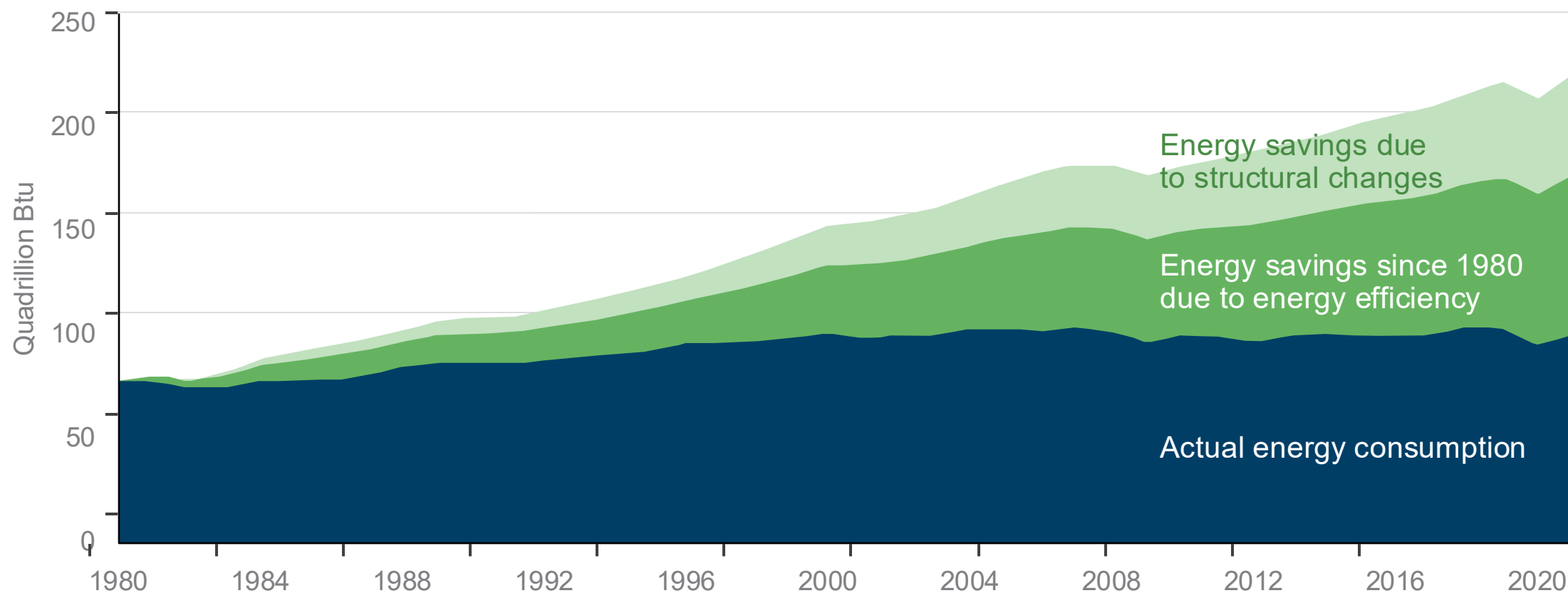
U.S. generation capacity additions per year

Gigawatts (1945-2024)



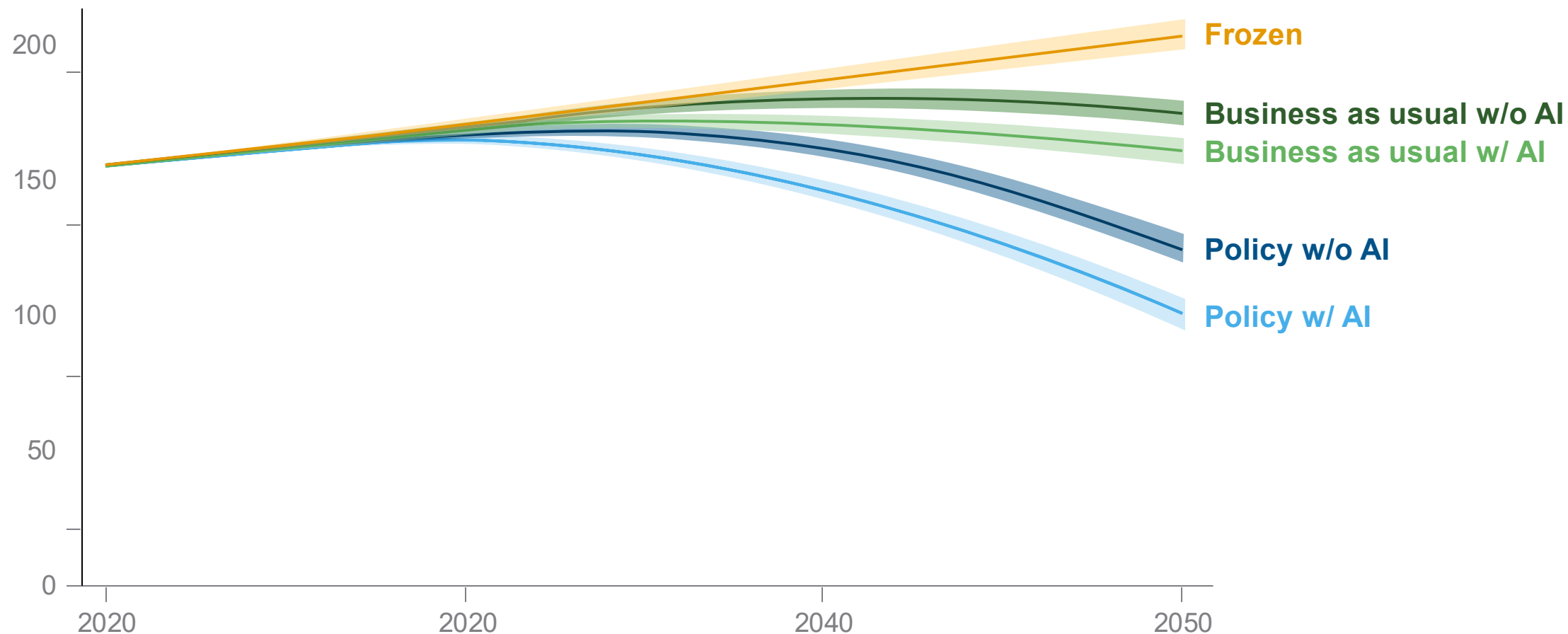
Energy demand ~80% higher without prior efficiency efforts

Project energy consumption based on 1980 energy productivity levels



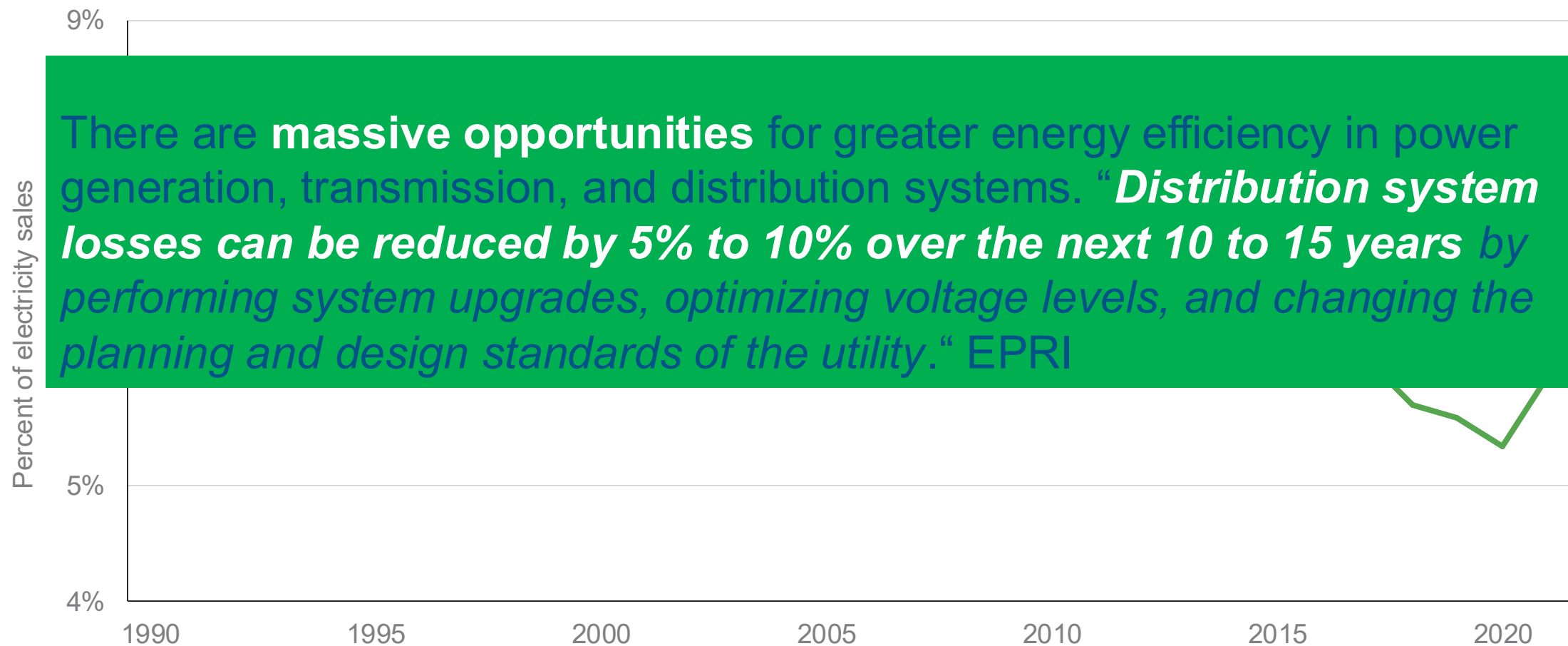
Aggressively evaluate new options for energy savings

Energy use (million MMBTU)



What are **smart strategies** for reducing technical losses?

Transmission and distribution losses



Managing “the message” around rising costs

Why are consumer electricity bills rising?

- Deferred investment combined with rising demand and supply chain issues is leading to rising electricity costs

How are the structural components changing?

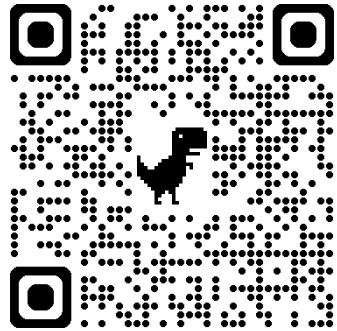
- Significantly higher spend on electricity delivery
- Because supply is not being built fast enough, costs will rise

How are we (utilities) mitigating those costs?

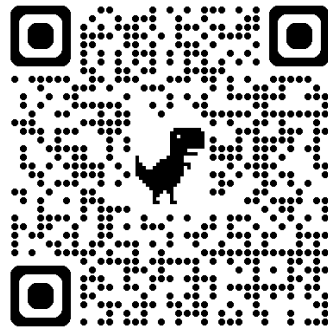
- “All of the above” strategy for new investment
- Energy efficiency 2.0 unfolding with AI machine learning

POWER PLAYS

PODCAST



Bracing for Grid Strain
and Customer Impacts
from Virginia's Data
Center Boom



The Energy Balancing Act
— Co-ops, Data Centers
and the New Grid
Equation



How to Build a Power
Plant (Quickly)

