DLCC Winter Forum
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HIGH POWER BILLS GOT YOU DOWN? POLICY STRATEGIES FOR AFFORDABILITY

Travis Kavulla, Vice President of Regulatory Affairs

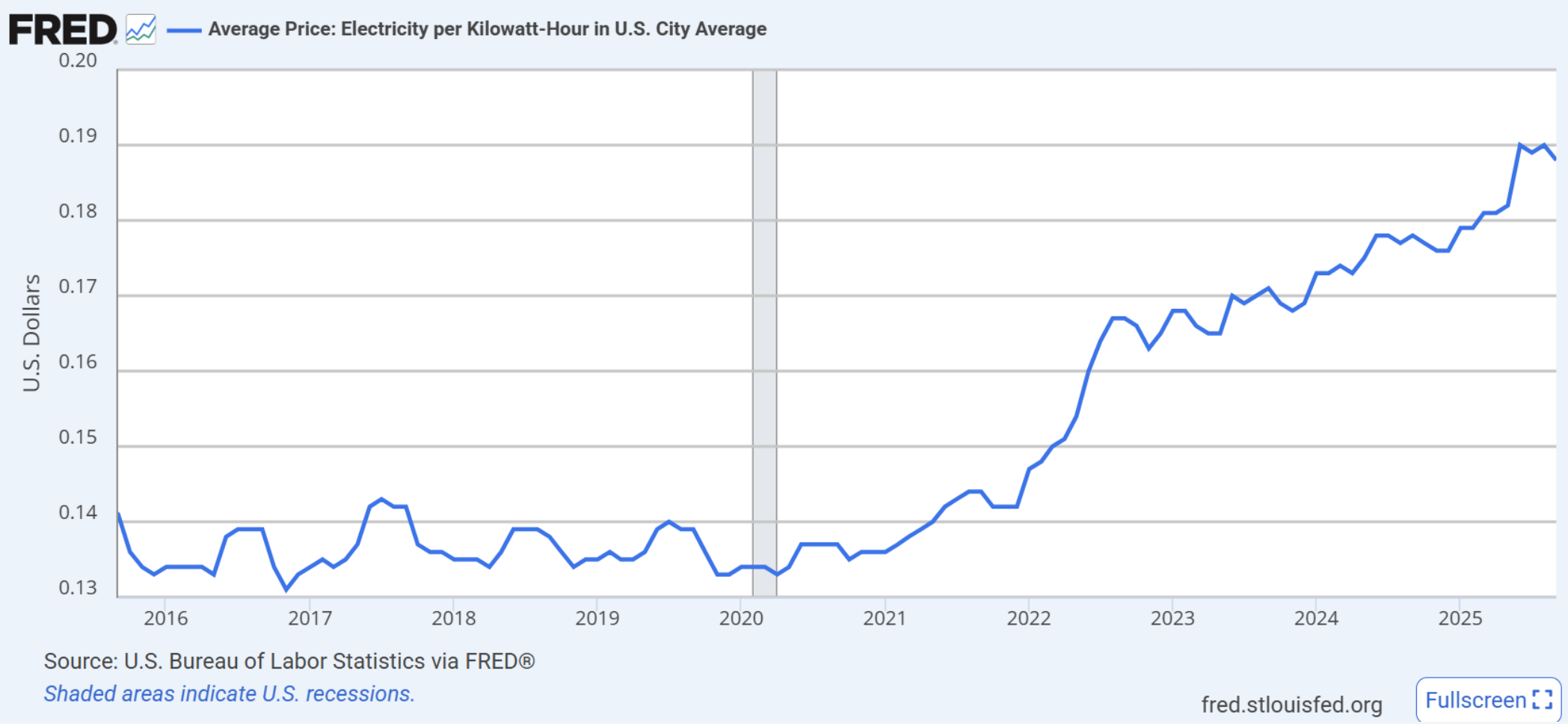
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OVERVIEW

- Electricity prices are rising. One of the key reasons for that is a regulated-utility industry that has little incentive to keep costs low (because they are a monopoly that has a ‘spend more, make more’ business model)
- Data center demand is projected to be large but very uncertain. It’s a risky time to be in the power sector
- 4 proposals for consumer affordability
  - 1. Finance utility capital investments at a lower rate by avoiding excessive utility profits
  - 2. Put utilities on a budget to encourage them to squeeze efficiencies out of their system
  - 3. Require that data centers be supplied with power from independent firms, not regulated utilities, to eliminate the risk of cross-subsidies from legacy customers
  - 4. Ensure that data centers are contributing at least enough payments in regulated ‘grid’ rates to cover all incremental costs they impose on the grid

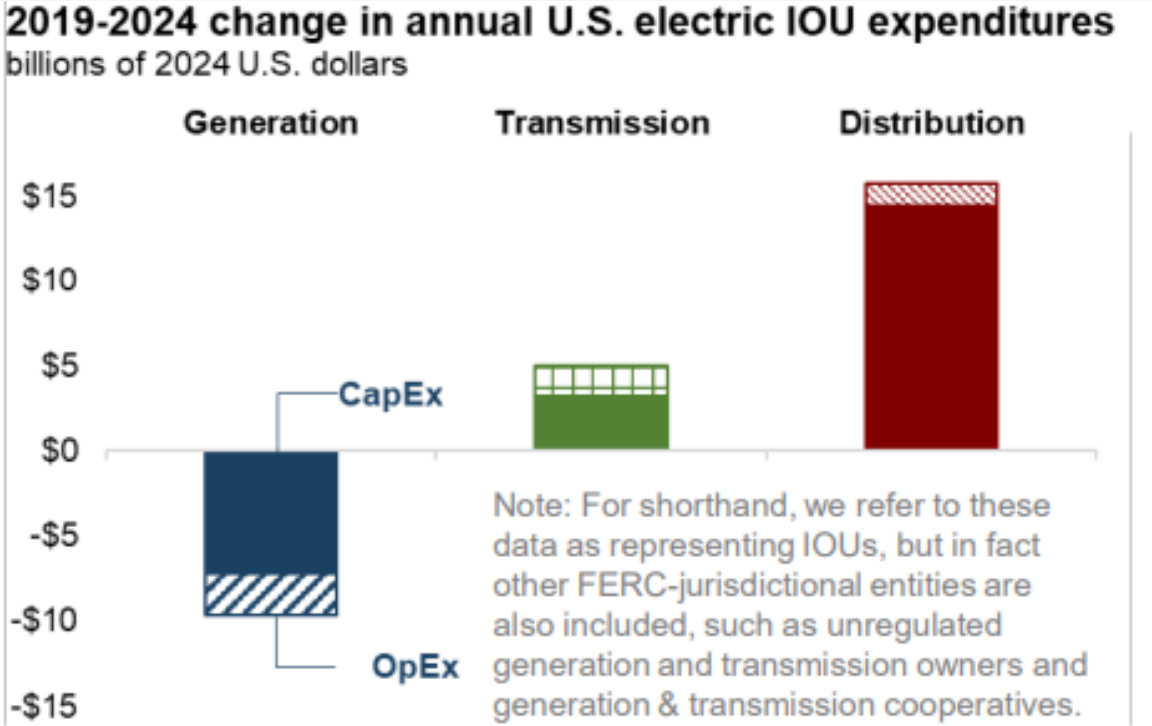
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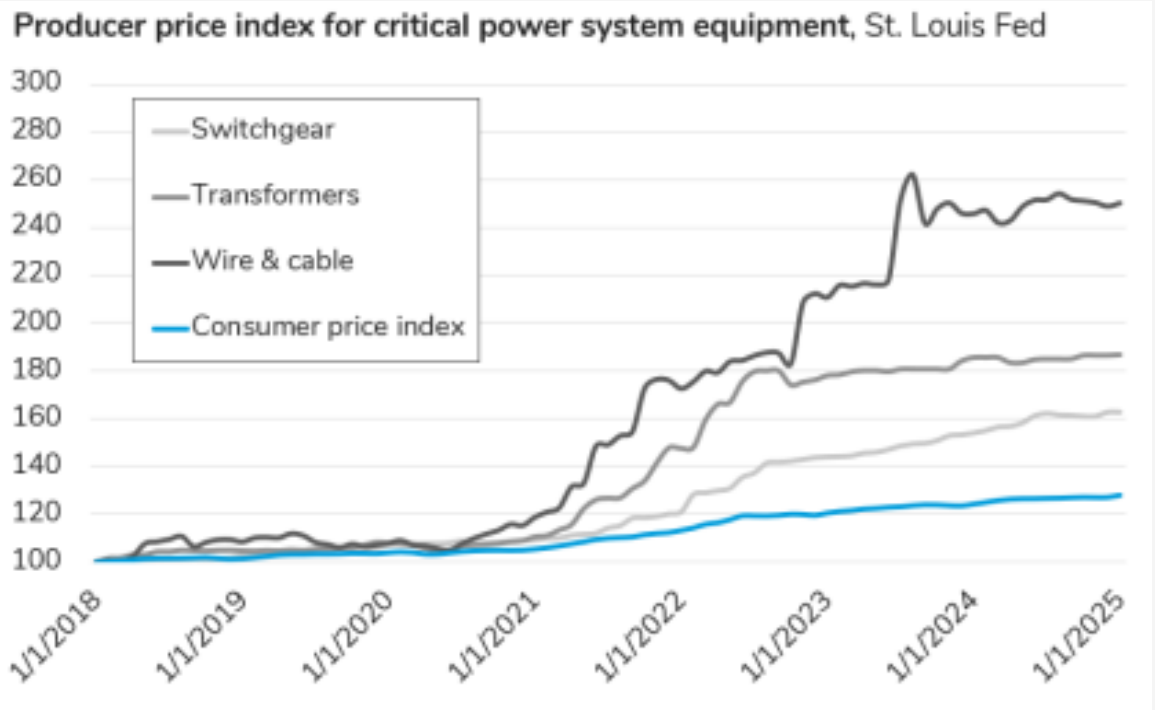
ELECTRICITY PRICES HAVE RISEN SHARPLY IN THE PAST FIVE YEARS



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UTILITY SPENDING HAS ESCALATED DRAMATICALLY





Source: Lawrence Berkeley National Laboratory

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SPEND MORE, MAKE MORE

- American utility regulation conveys an incentive to investor-owned utilities to spend as much capital as possible to earn higher returns, then do little to make the most use out of the capital infrastructure that's been invested in.
- Utilities acting under this incentive are a significant contributor to the affordability crisis American ratepayers are experiencing today.

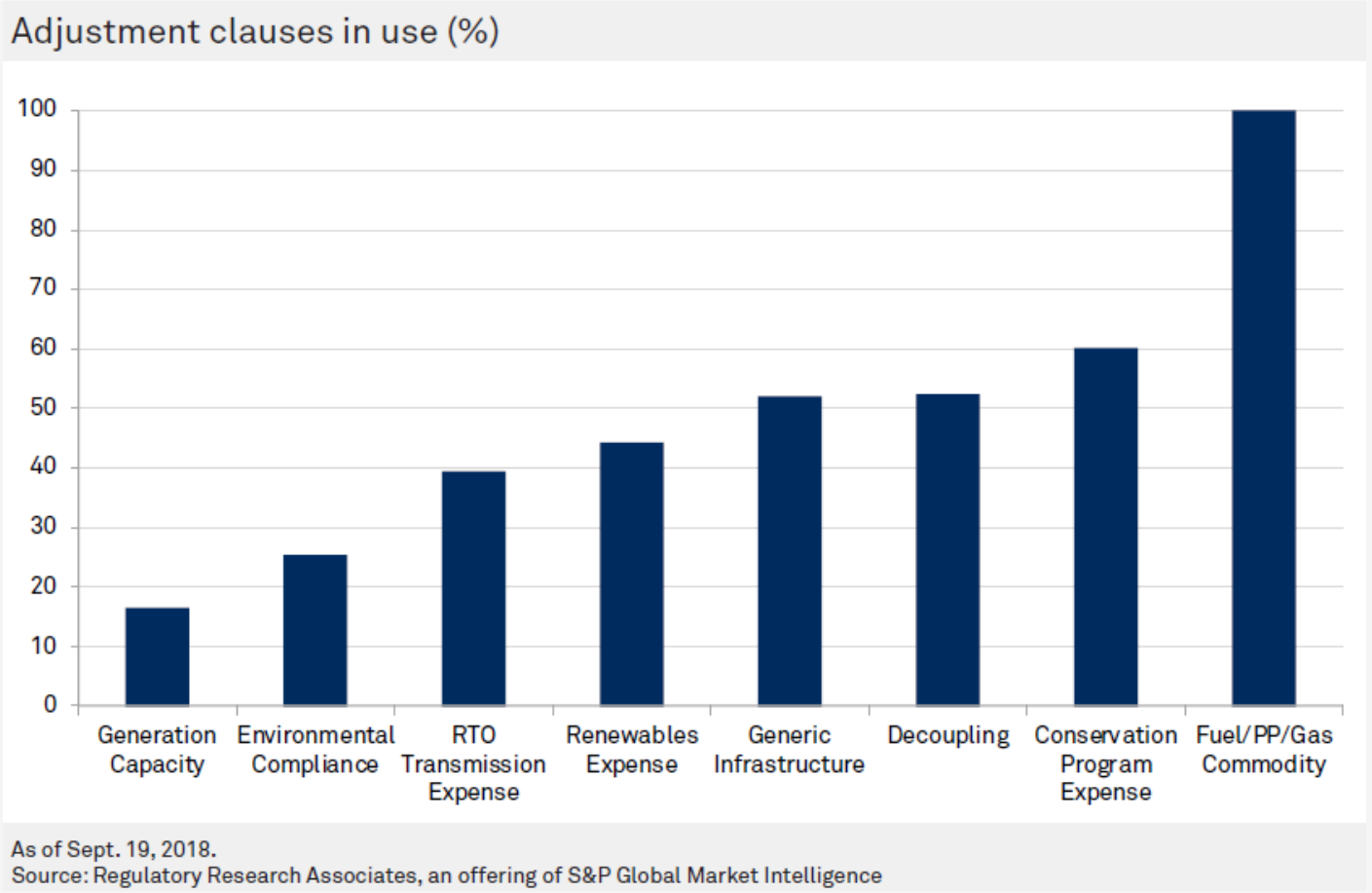
Revenue Requirement = O + T + D + r(RB)

- O= Operating Expenses
- T = Taxes
- D = Annual depreciation expenses
- r= fair rate of return (weighted cost of capital)
- RB= Rate Base
  - **value of utility plant assets** minus **accumulated depreciation**

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LESS 'SKIN IN THE GAME', MORE IMMEDIATE PASS-THROUGHS OF COSTS TO CONSUMERS

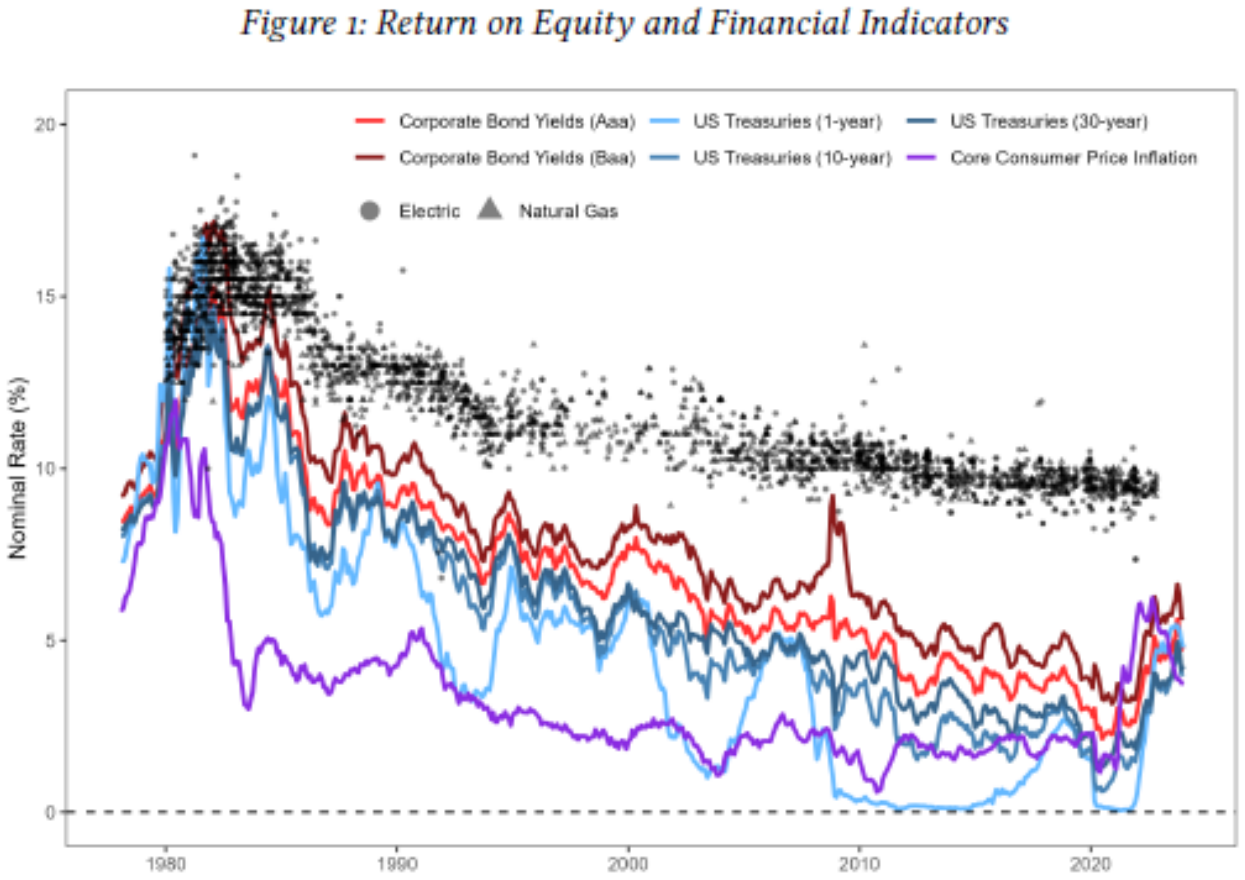
- Utilities used to be 'on a budget' – with rates periodically reset, their bottom line would then be exposed to any deviations in costs. Under this approach, they would share the pain of rising costs with consumers.
- However, the introduction of 'adjustment clauses', 'riders' or 'trackers' has eroded this incentive over time.
- These rate adjustors recover to the utility whatever it happened to spend, regardless of the initial 'budget' for these costs.



As of Sept. 19, 2018.
Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

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LESS RISK…. MORE REWARD?



Source: Werner & Jarvis (2025) "Rate of Return Regulation Revisited" – Energy Institute at Haas

- Regulator-authorized profits (Return on Equity) reached an all time high in 2020, net of the "risk-free" rate (as measured by 30-Y Treas bonds)
- Recent increases in Fed borrowing rates have eroded the most extraordinary profits
- Nevertheless, investors in utilities can make either a 4.5% Treasury return vs a ~9-10% return in a utility sector whose investors face few risks
- Utilities also have 'thick' equity ratios, higher than other infrastructure sectors

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REFORM STEP 1: REFINANCE UTILITY SPENDING

- The utility sector is a system with substantial capital spending, and if that capital is not financed in the lowest-cost way possible, then customers will be overpaying and the perverse incentives described before will be magnified.

- Three possible options
  - **Securitization**. Utilities and gov’ts issue low-interest ‘securitized bonds’ secured by future ratepayer collections, at an interest rate similar to municipal or state bonds.
  - **Re-balanced capital structure**. PUCs should require greater leverage, moving away from a ~50% equity ratio. Greater ‘leverage’, or debt financing, would align electric utilities with telecom, rail, airlines, and other infrastructure industries.
  - **Competitive equity**. At present, PUCs are in the position of guessing what the appropriate return on equity should be for utilities, which is then built into rates. A better approach is an innovative new idea “competitive direct equity,” where utilities would raise equity through an auction for incremental capital spending they engage in. (Credit to Mark Ellis of the American Economic Liberties Project for this idea.)

Customer rates could be substantially reduced by financing utility spending with debt

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EXAMPLE OF SECURITIZATION

- Consider PSE&G's electric utility, which serves 2.4MM customers in New Jersey, where the newly elected governor has promised to 'freeze' electricity rates by executive order.

- The state PUC (the New Jersey Board of Public Utilities) has set rates for PSE&G customers with:
  - a Return on Equity (shareholder profit) of 9.6%, or 13.7% pre-tax (ratepayers pay for the utility's income taxes through utility rates), at
  - a 55% equity ratio, for a 'Weighted Average Cost of Capital' (WACC) of 9.33%
  - $1.2B annual return, based on WACC & capital invested its distribution system, $12.7B

- Issuing securitized bonds (the % interest rate reflects issuances since 2022) would pay off the principal in rate base, removing it from the utility books. The high-cost utility return would be replaced by low-interest debt. This produces annual savings to consumers of $543M. (For context, total PSE&G electric revenue from NJ customers in 2024 was $4.37B).

Consumer savings from securitization ($ millions)				
		Total Return/Profit		
	Principal	Utility	Securitization	Annual Savings
Rate		9.33%	5.04%	4.29%
Distribution Rate Base	$ 12,662.0	$ 1,180.9	$ 638.2	$ 542.7

Sources:

FERC Form 1 (PSE&G 2024), EIA Form 861; NJ BPU Order approving PSE&G rates (Oct 2024) NRG analysis

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REFORM STEP 2: PUT UTILITIES BACK ON A BUDGET WITH PERFORMANCE-BASED REGULATION

- **Multi-year Rates:** Terminate nearly all ‘adjustment clauses’ and ‘riders’, and fold these costs back into base rates that are re-set only 3-5 years (or a long enough period for utilities to be positioned to ‘own’ the managerial decisions they make)

- **Sharing Mechanisms:** For those riders not eliminated – like fuel costs – have a sharing mechanism that establishes a baseline, and when costs are above/below baseline, shareholders have exposure to the overs/unders, sharing in the pain (or profit) of good decision-making with customers

- **Break the link of ‘Spend More, Make More’.** If annual changes to utility rates are permitted, they should be tied to wider economic indicators that affect families and the economy broadly, e.g.

  $$\text{Revenue Requirement} = RR_t + RR_t*(I - P), \text{ where}$$

  -RRt represents the revenue requirement of the previous interval (e.g., the one authorized by regulator in last rate case),
  -“I” is an economy-wide measure of inflation, e.g., the U.S. GDP-Price Index
  -“P” is a measure of productivity, or the rate of efficiency in the utilization of capital and labor

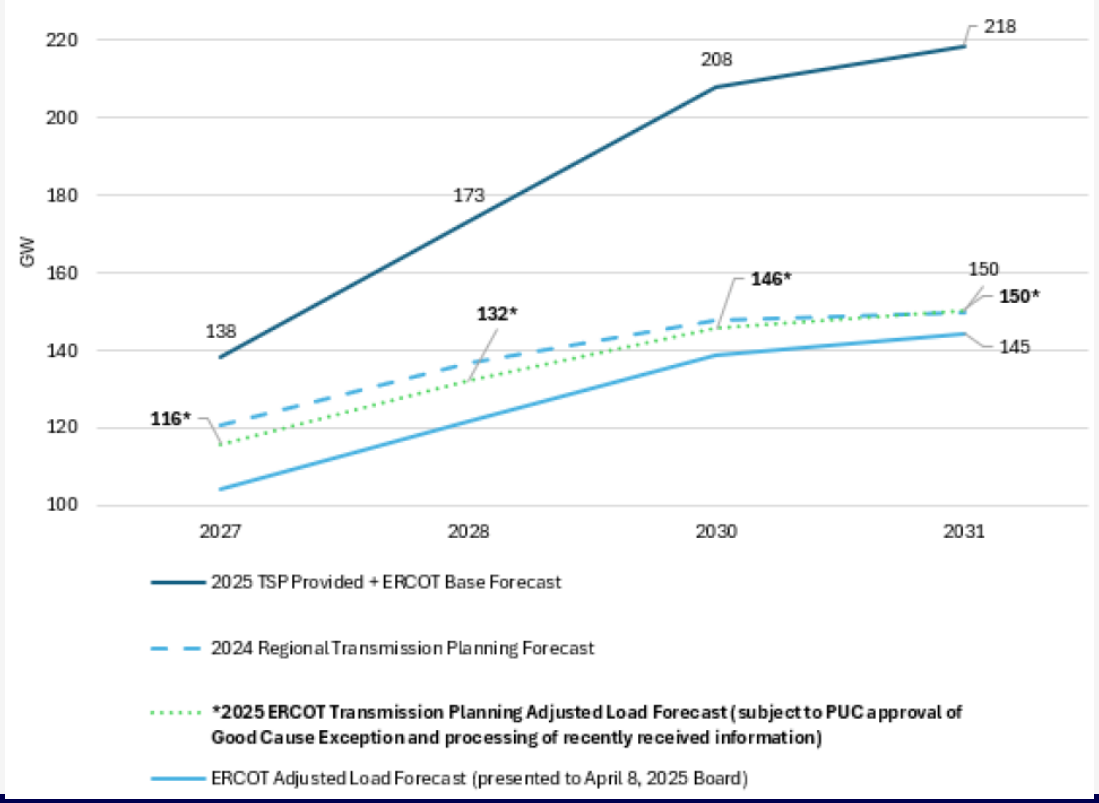
Every American family & business has to live within a budget – and utilities should be no different

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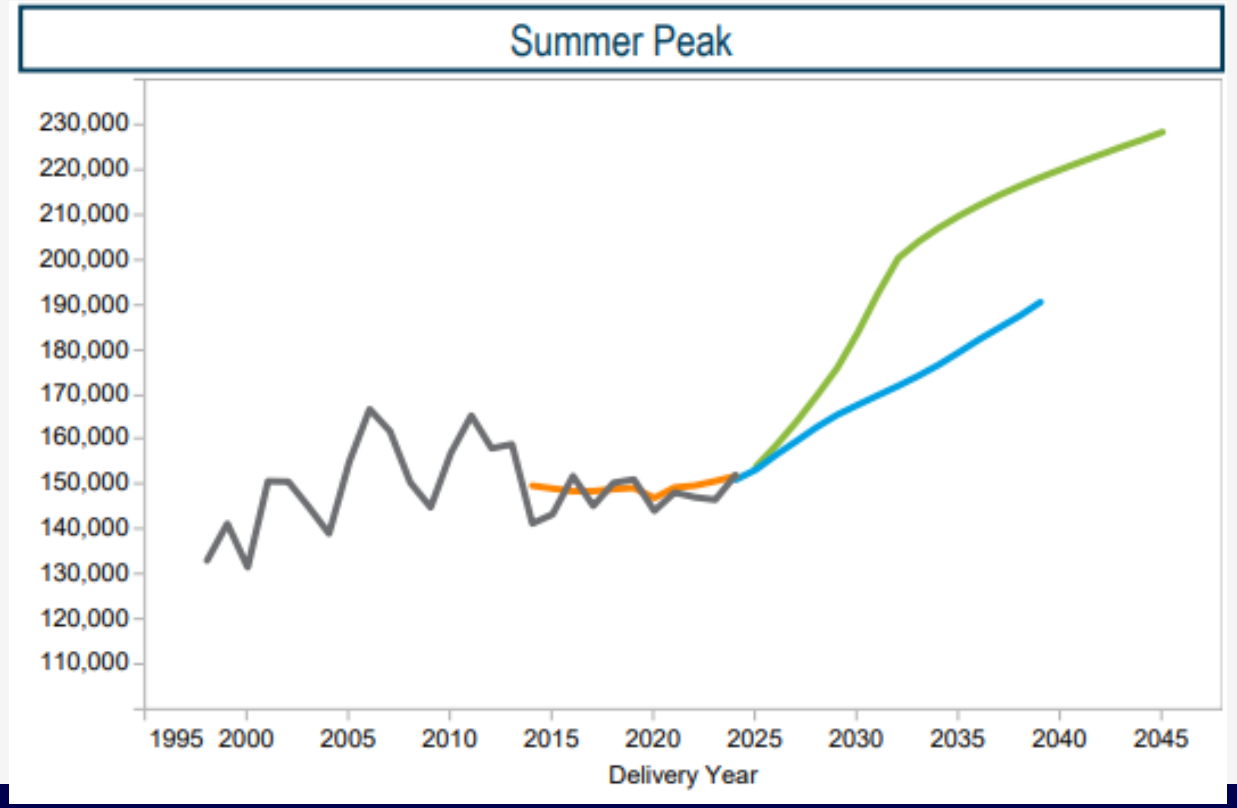
WHAT ABOUT DATA CENTERS?

- Without data centers, electricity demand forecasts would be relatively flat
- With data centers, the industry faces significant growth but significant uncertainty about how much will actually materialize

ERCOT (Texas)



PJM (Mid-Atlantic to Chicago)



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RISKS TO LEGACY CUSTOMERS FROM REGULATED UTILITY SERVICE TO DATA CENTERS

- Most utilities are understandably exuberant, given their incentives, to serve data center demand that will add very significant capital into their rate base (putting the ‘Spend More, Make More’ business model on hyperdrive).

- Data centers can readily bring their business to many different utilities. So utilities – while they are local monopolies for their legacy customers who cannot readily pick up and move – are vigorously competing with each other to attract data centers, which increases the risk of ‘sweetheart’ deals at legacy customers’ expense.

- Already, utilities appear to be taking on risks and engaging in cost-shifting
  - A lack of ring-fencing, so projects financed out of the same pool of equity/debt that is used for all other customers
  - Projects advertised as backstopped by hyperscalers seem to lack a parental guarantee
  - Ad hoc, highly redacted deals made with data centers – rather than the “filed rates” and transparent (if complex) regulatory processes that should exist

- America needs to win the economic competition in A.I., but there are good reasons not to put the regulated utility industry in the driver’s seat

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REFORM STEP 3: UTILITIES SHOULD NOT BE INVOLVED IN POWER GENERATION FOR DATA CENTERS

- The reform here is pretty simple! Utilities should not be permitted to invest in power generation in their regulated rate base to serve data centers.
- Data centers should exclusively be served power through contracts with independent power producers and other firms that do not have recourse to a captive set of ratepayers.
- If regulated utilities want to serve power to data centers, they should set up a competitive affiliate that is bankruptcy remote, and separately staffed.
- This approach will contain the risk between two counterparties whose potential failure will not negatively affect legacy ratepayers.
- Regulators and policymakers should consider establishing regulatory incentives (such as ‘speed to power’) or requirements for data centers to ‘bring your own generation’, so that once residual capacity in the system is exhausted, data centers coming online are directly responsible for adding capacity to the system that will be needed to serve them.

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REFORM STEP 4: APPROPRIATELY ALLOCATE 'GRID' COSTS TO DATA CENTERS

- Regulated utilities do play a role in hooking up all customers, including data centers, to the grid. So even if utilities are out of the power-generation game for data centers, policymakers still will need to grapple with a fair allocation of costs to obtain grid access.

- Some utilities (e.g., Exelon, AEP, Dominion) have suggested a 'minimum commitment' framework that guarantees ~10 years of revenue to the utility under their standard transmission/distribution rates for data centers seeking grid access. Some observations:
  - A 'minimum commitment' is conceptually a good step, however…
  - The actual incremental cost to provide grid access may be greater or lesser than a 'minimum commitment' calculated in this way
  - The utilities' approach does not send a price signal about *where* on the grid to efficiently locate a data center to minimize costs.

- Better ideas
  - A 'minimum commitment' based on the *actual* incremental cost
  - Auction or put out to bid the right to interconnect through an open season. Declare any auction successful if it recovers more than the incremental cost. FCC's spectrum auctions have raised $233B for the public since 1994.

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