



Regulatory Strategies to Support Affordability Through Utility Cost Control

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Report link: [A Strategic Framework for Utility Cost Control](#)

Introductions

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Agenda

1. Cost control: an important pillar of affordability

- Overview of cost drivers & challenges to affordability
- A strategic framework for utility cost control

2. Strategies in focus

- Incentivizing reduced spending
- Leveraging competition
- Avoiding inefficient system expansion

3. Q&A and Discussion

Four main avenues to support affordability



Four main avenues to support affordability

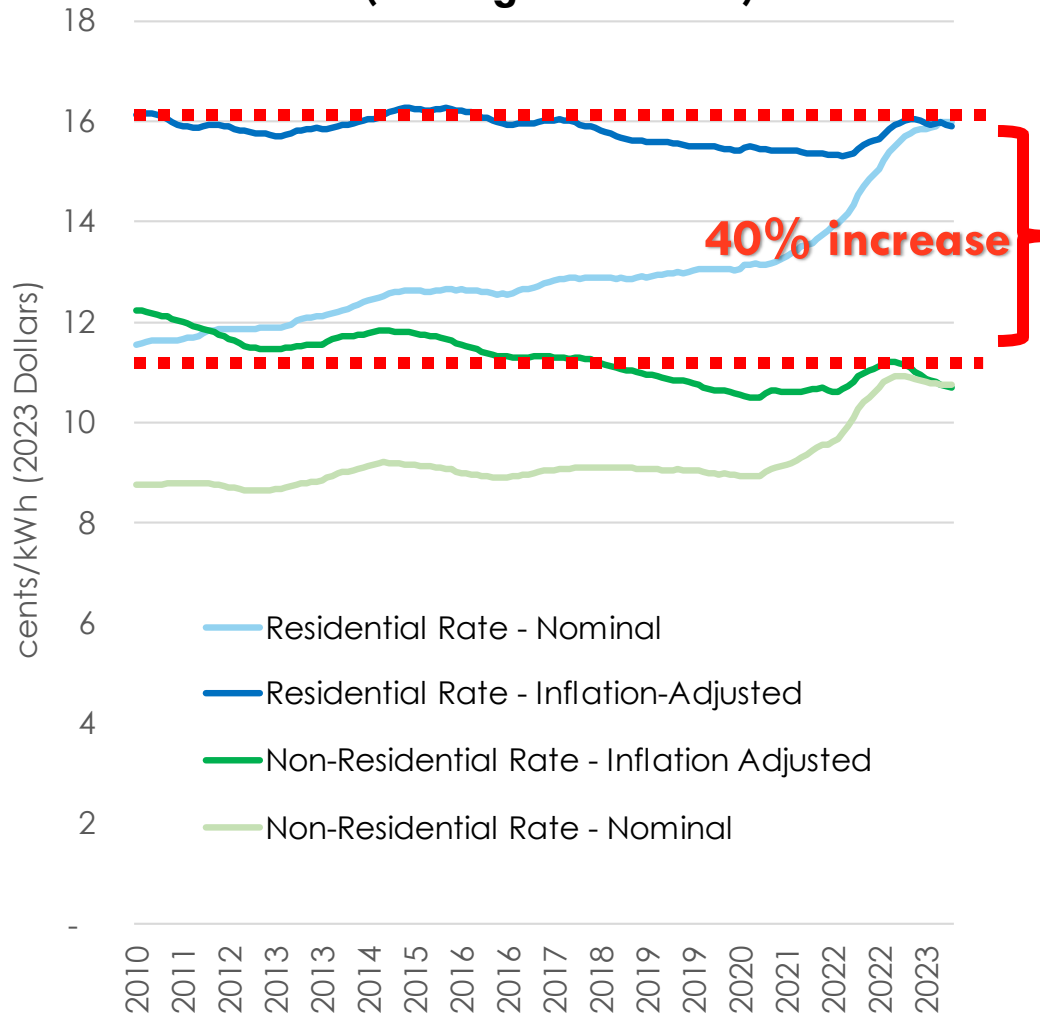


A blurred background image showing two people in a professional setting. One person, wearing a light-colored shirt, is holding a document and pointing at it. The other person, wearing a dark shirt, is looking at the document. The image is partially obscured by a dark blue vertical bar on the left and a teal horizontal bar in the center.

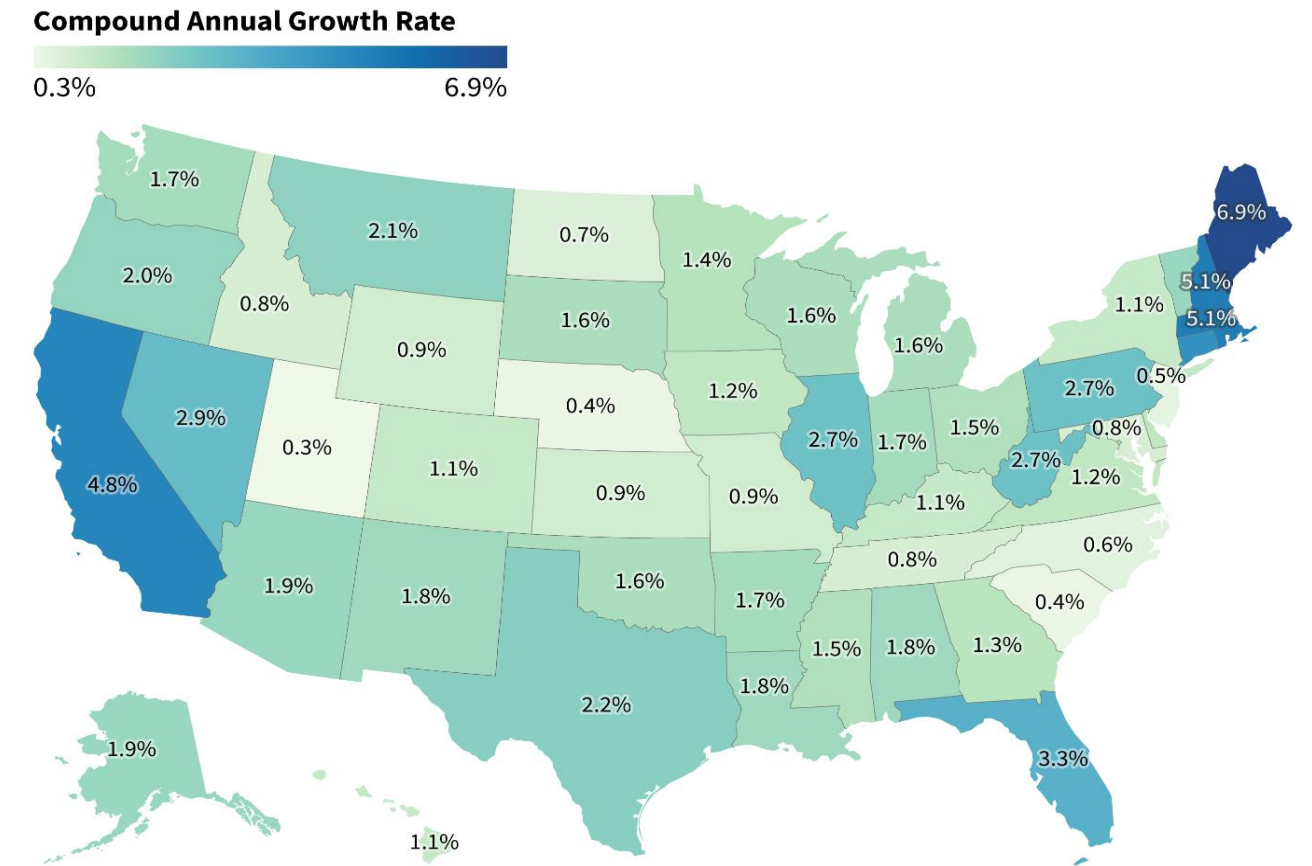
Overview of cost drivers & challenges to affordability

Residential electricity rates and bills are on the rise

Average Residential Rate vs. Non-Residential Rate (Rolling 12 Months)



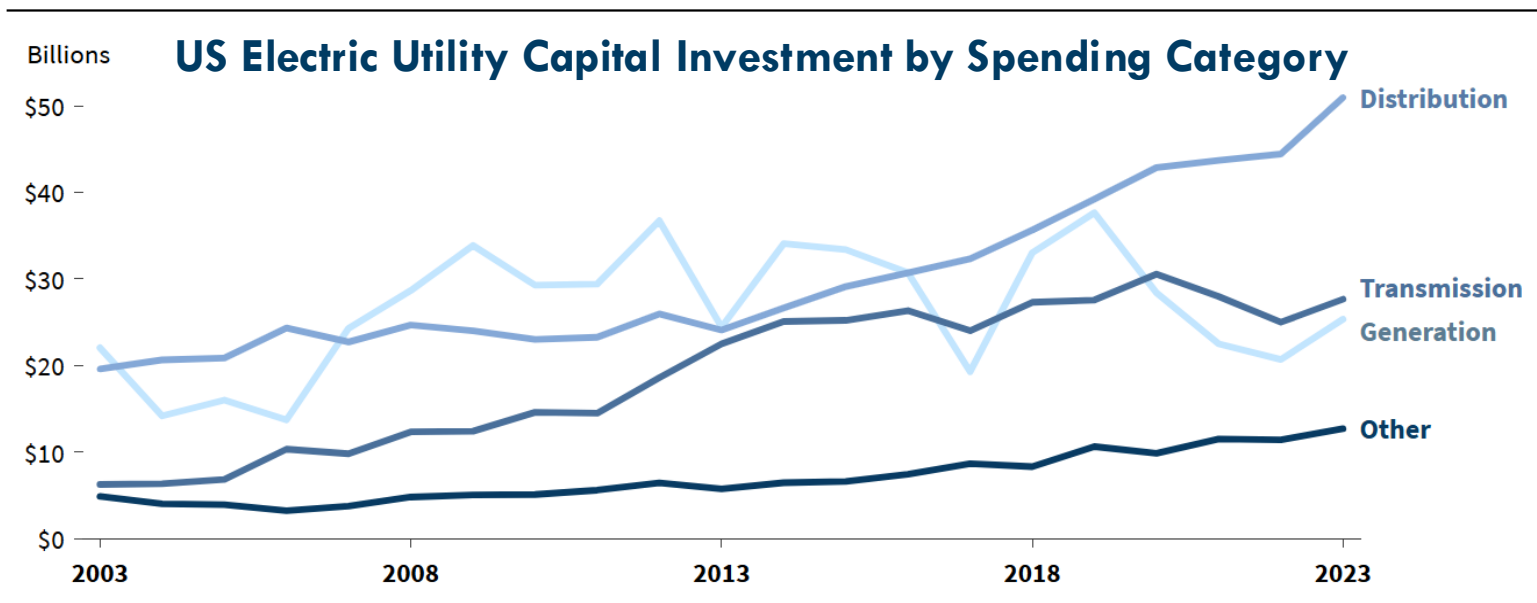
Average Monthly Residential Electricity Bill Increases



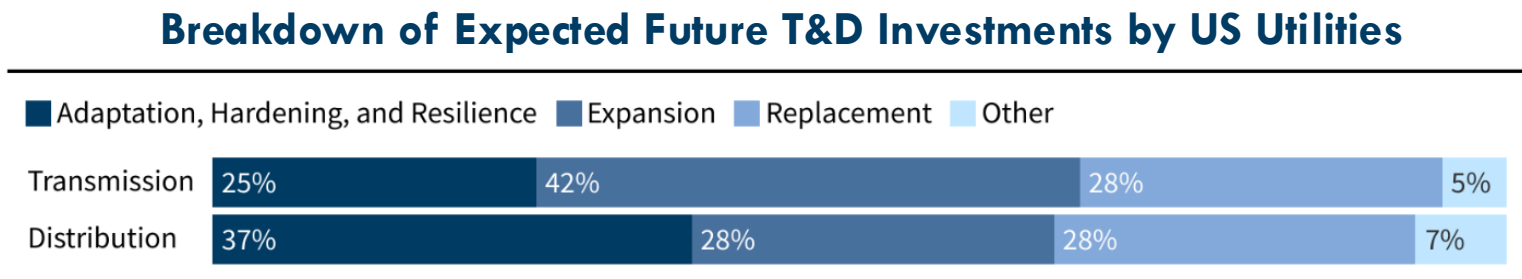
Note: The percentages shown are not adjusted for inflation, which was 3.1% over this period for the US.

Source: RMI analysis; EIA data

Capital investment in transmission and distribution is on the rise



Source: [EIA](#)



Source: [EEI](#)

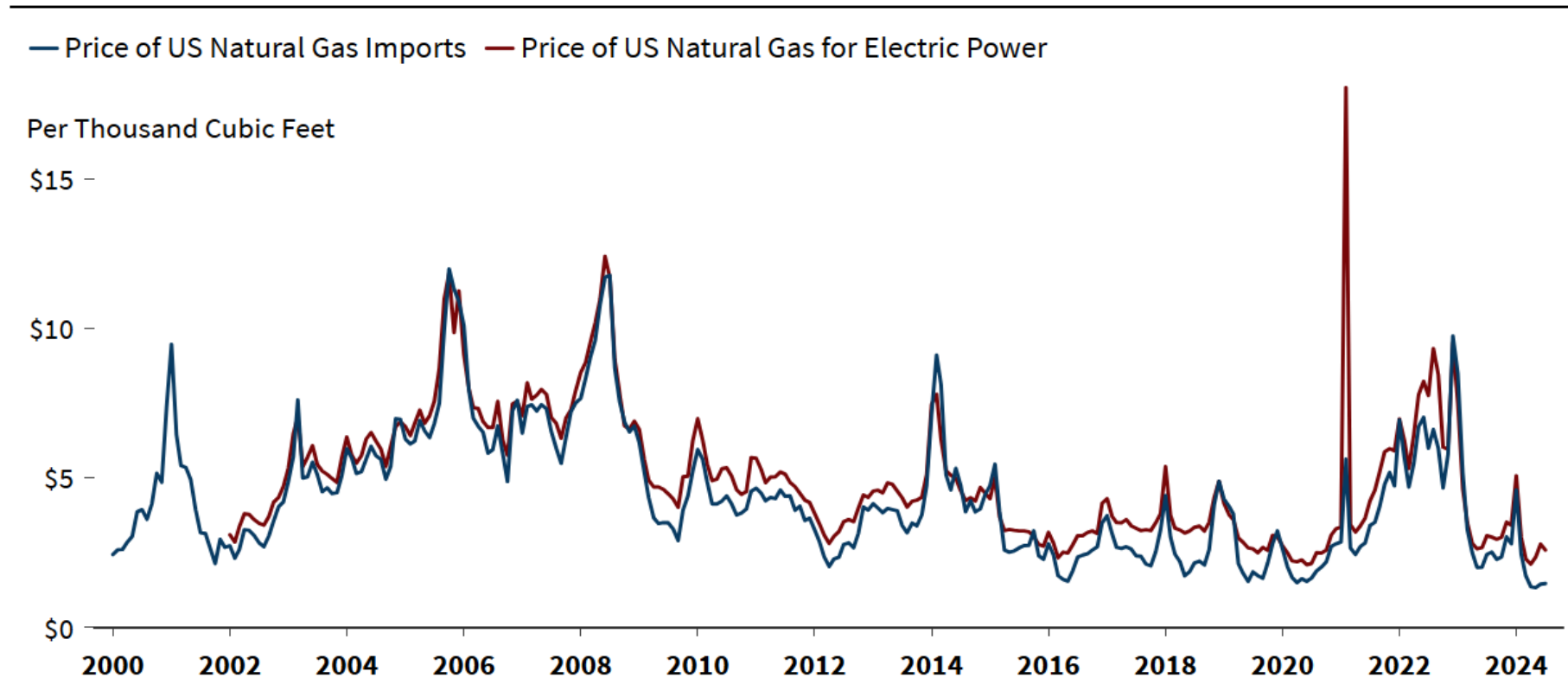
Contributing Factors:

- Replacement of aging and end-of-useful life assets
- Expanding the grid's capacity
- Hardening for system resilience
- Modernizing the grid to accommodate a higher penetration of advanced technologies
- Shifting from larger, higher-voltage transmission projects to smaller local projects*

* RMI's recently published report shares insights into 11 key reforms aimed at closing the regulatory gap in transmission planning. See [How to enhance local transmission](#)

Natural gas is highly price volatile...

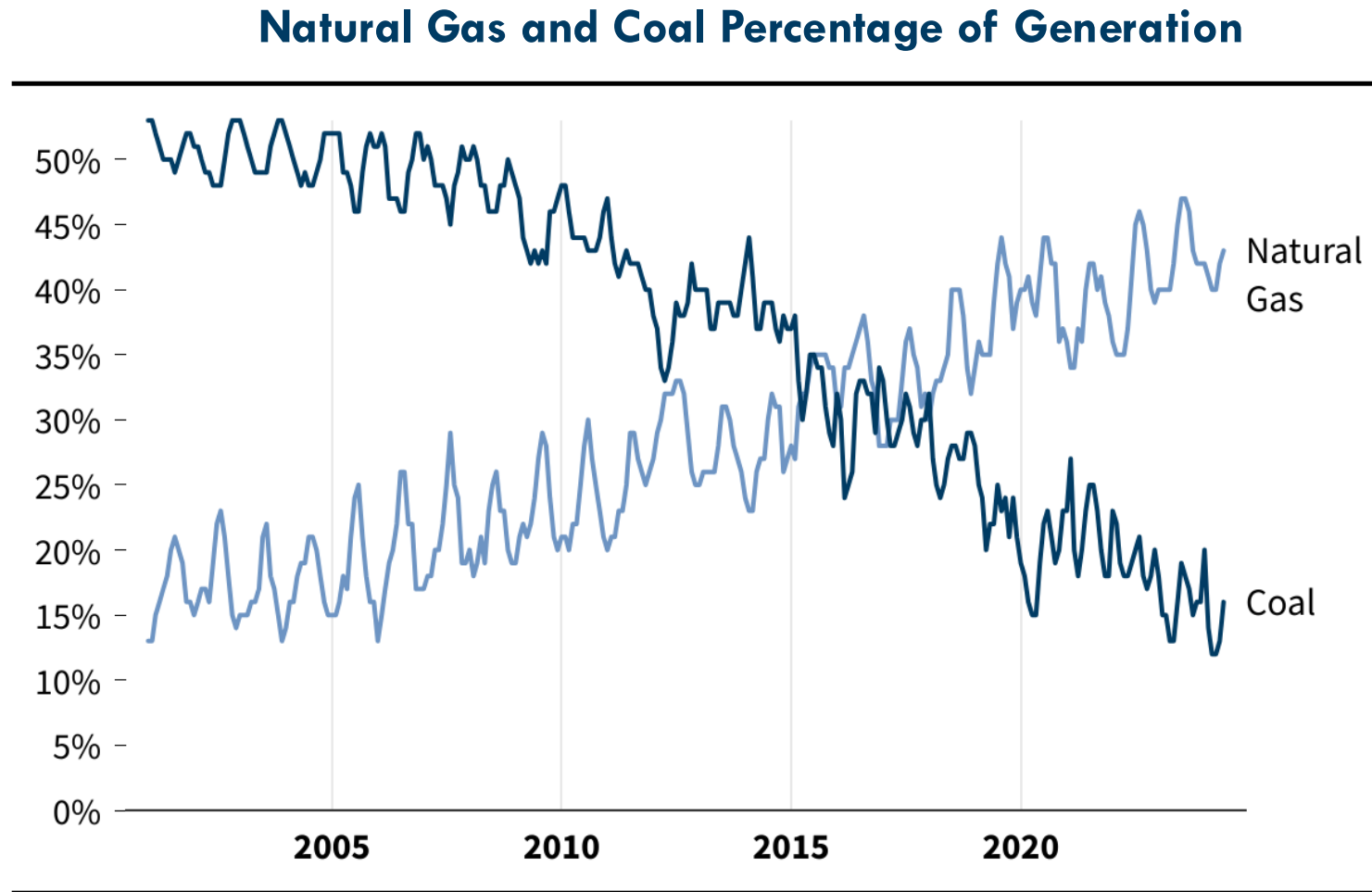
Price of US Natural Gas: Imports and Electric Generation



Note: Price presented in nominal dollars.

Source: [EIA](#)

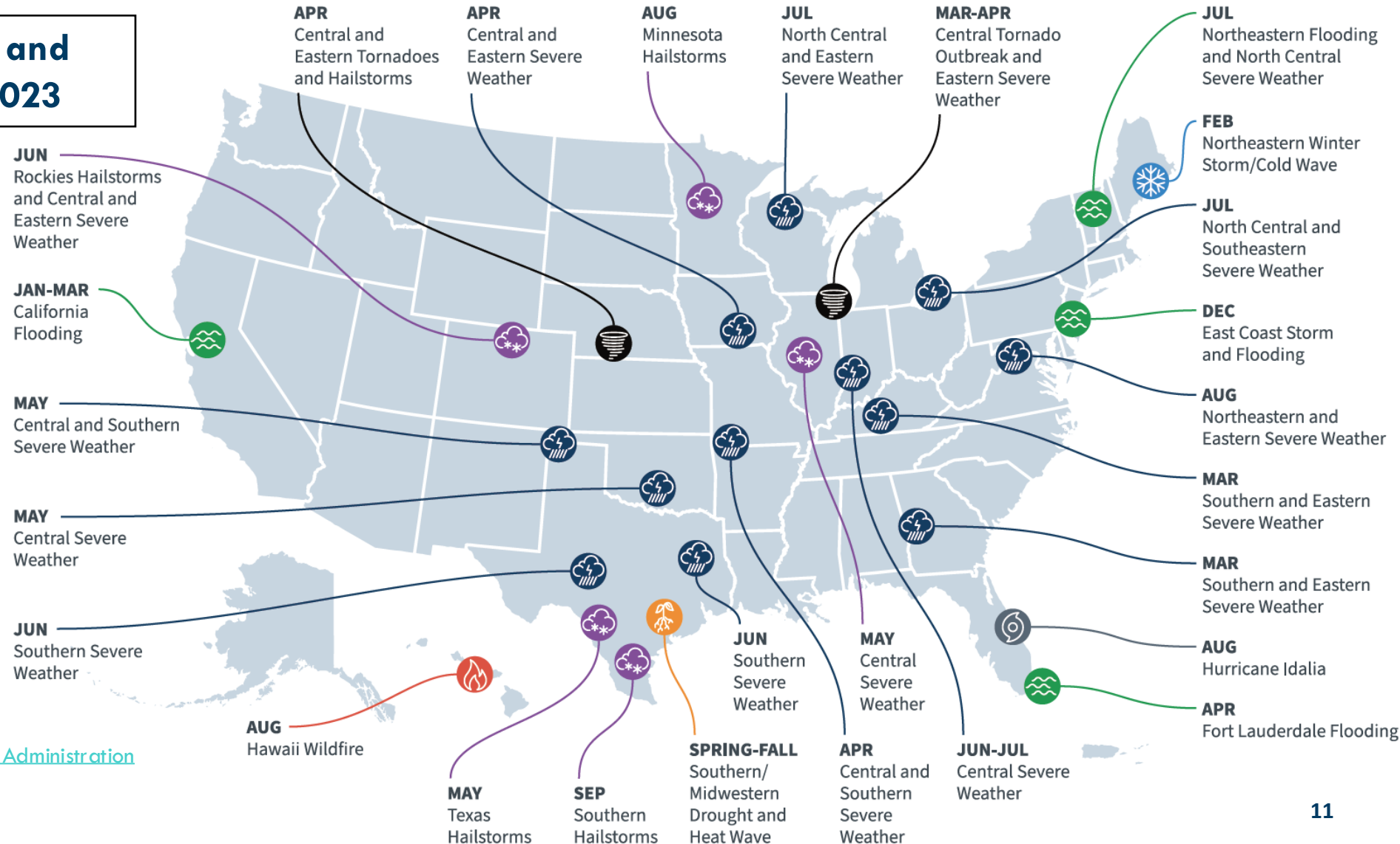
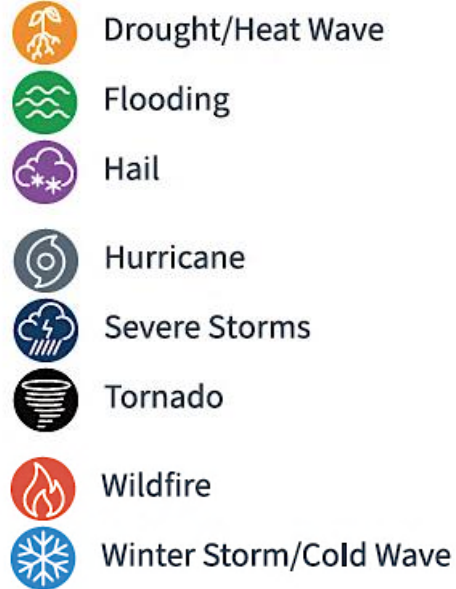
...And reliance on natural gas has increased



Source: [EIA](#)

Frequent extreme weather events and wildfire amplify the financial burden of maintaining the electric grid

Billion-Dollar Weather and Climate Disasters in 2023

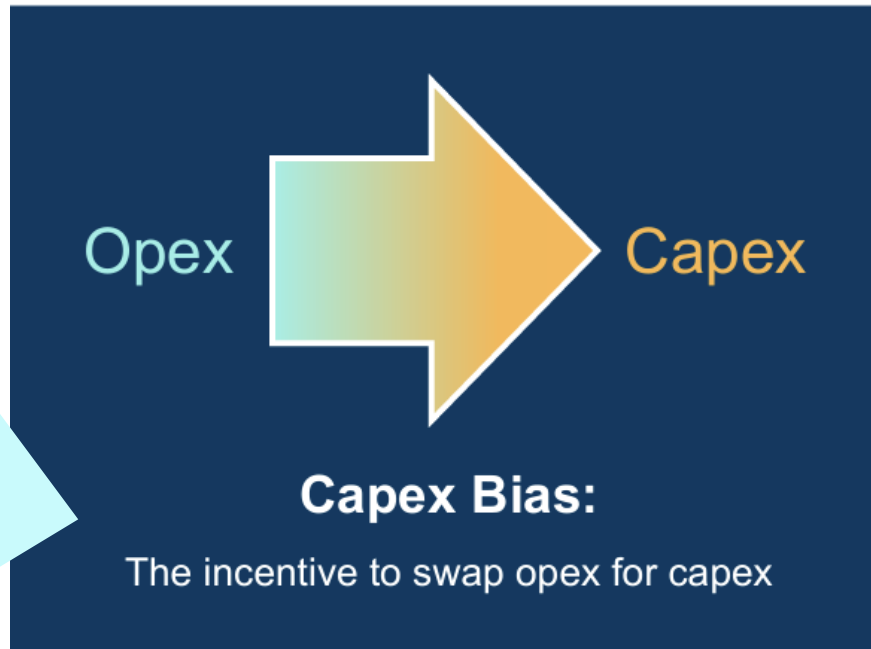


Source: [National Oceanic and Atmospheric Administration](#)

Exacerbating these trends is capex bias and gold plating incentives, which motivate utilities to overinvest in costly, capital solutions

Under the traditional cost-of-service (COSR) regulatory framework, capital expenditures (capex) become part of the utility's rate base (by which the rate of return is multiplied) and depreciated over time, while operating expenses (opex) are passed through to customers. This means that capex presents an earnings opportunity for shareholders but opex does not.

*Example:
A utility may opt for a large power plant rather than a portfolio of distributed energy resources (e.g., a virtual power plant)*



*Example:
A utility may overspend on traditional transmission wires rather than enhancing existing grid capacity through reconductoring or grid-enhancing technologies*

The expanded use of cost trackers are amplifying utility perverse incentives

- A cost tracker is a mechanism designed to *expedite cost recovery for a particular category of costs* (e.g., advanced metering infrastructure).
- Cost trackers weaken cost-containment incentives due to
 - Reduced regulatory lag
 - Reduced prudence scrutiny (less time, less rigorous),
 - Design features which guarantee cost recovery (if applicable)
- Use of cost trackers in the United States has *expanded substantially* over the last few decades.
 - 81% of investor-owned utilities have cost trackers for fuel and purchased power
 - 70% for energy efficiency programs
 - 50% for transmission related expenses
 - 28% for environmental compliance costs
 - 23% for renewables expenses
 - 13% for generation capacity

A Strategic Framework For Cost Control



A strategic framework for cost control

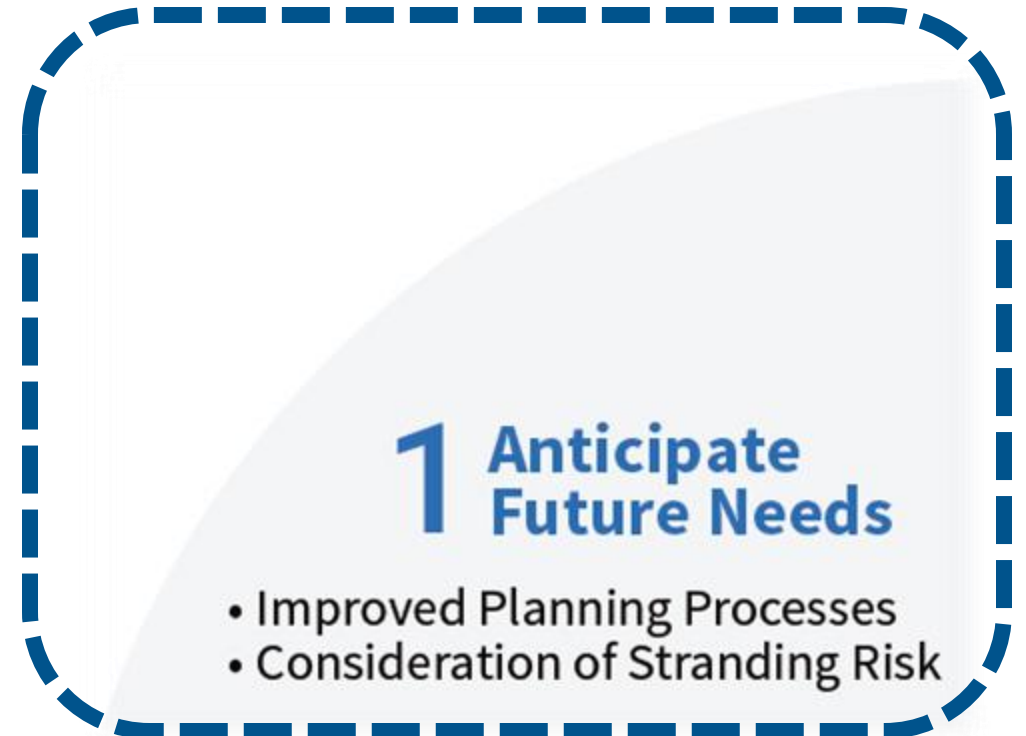
Seven strategies to support cost-efficiency, which can be operationalized by a total of 16 levers.

This framework can serve as a menu of options to design comprehensive and effective portfolios of reforms to promote cost control and affordability.



1. Anticipate Future Needs

- This strategy recognizes that anticipating future needs requires routine and transparent planning processes that use realistic expectations to ensure utilities only make the investments that are necessary, at the lowest cost.
- The levers for this strategy can help ensure that only needed assets and activities progress.



2. Coordinate Electric and Gas Regulation

- This strategy promotes seeking alignment between the assumptions, goals, and data used in gas and electric planning to eliminate redundancy and coordinate investment in both sectors.
- It also supports creating a plan for an orderly transition of the gas system as the utility's core business evolves to avoid unnecessary or overly costly near-and medium-term investments.

2 Coordinate Electric and Gas Regulation

- Better Alignment Between Electric and Gas Planning
- Managed Gas Transition

3. Lower Financing Costs

- Since the utility business is capital-intensive, capital investments can be a significant share of revenue requirements. This strategy seeks to reduce financing costs to significantly lower customer bills.

3 Lower Financing Costs

- ROE Reform
- Ratepayer-Backed Securitization

4. Incentivize Reduced Spending

- The traditional regulatory model rewards capital spending and creates a weak incentive to reduce operating expenses.
- This strategy seeks to create strong incentives for the utility to find ways to reduce spending across a range of cost categories.

4 Incentivize Reduced Spending

- Multiyear Rate Plans
- Shared Savings Mechanisms
- Capex-opex Equalization

5. Leverage Competition

- Competition can lead to lower prices by encouraging utilities to better leverage existing resources, innovate, and work more efficiently.
- Regulators can leverage the power of competition by increasing the opportunities for—and lowering the barriers to—fair competition of entities and resources.

5 Leverage Competition

- All-Source Procurement
- Increased Utilization of Distributed Energy Resources

6. Avoid Inefficient System Expansion

- Utilities generally have a financial incentive to overinvest in capital projects, which can result in focusing too narrowly on costlier traditional solutions and neglecting to fully leverage least-cost solutions first.
- Regulators can mitigate utilities' overinvestment risk by removing barriers to efficient load management and reducing opportunities for unrestrained spending.

6 Avoid Inefficient System Expansion

- Revenue Decoupling
- Time-Varying Rates
- Careful Consideration of Capital Cost Trackers

7. Encourage Better Fuel Cost Management

- In some contexts, utilities have little or no incentive to be efficient stewards of fossil resources.
- Regulators can encourage utilities to manage fuel use more cost-effectively by securing lower fuel prices, dispatching generation resources in merit order, and considering fuel cost volatility in new investment decisions.

7 Encourage Better Fuel Cost Management

- Fuel-Cost Sharing
- Economic Dispatch

Three additional policies can reinforce and complement cost control strategies



Data Transparency

- Improve visibility into utility cost trends and spending.
- Support evaluation of alternatives to proposed projects.
- Facilitate benchmarking for comparison.
- E.g., management audit



Cost Ineligibility

- Classify certain costs as ineligible for recovery (e.g., lobbying, rate cases, executive perks).
- Ensure utilities cannot pass these costs to ratepayers.



Non-ratepayer Funding Sources*

- Reduce customer bills by leveraging alternative funding.
- Potential other sources: state & federal grants, loans, bonds, tax revenues.



Cost containment strategies in focus

1. Incentivize reduced spending
2. Leverage competition
3. Avoid inefficient system expansion

Multiyear rate plans (MRPs) can motivate utilities to find efficiencies, when designed well

- **MRPs can create a cost-containment incentive by**
 - Extending the time between rate cases, so base rates remain in place longer before being reset, and
 - Creating an opportunity for the utility to benefit financially if it finds ways to cut costs.
- **Base rates are usually adjusted during the MRP in a predetermined manner to accommodate spending needs.**
- **The cost-containment incentive is stronger when:**
 - Rates are adjusted independently of the utility's spending decisions or forecasts (e.g., based on external indices like inflation)
 - The MRP has a longer term (e.g., 5 years rather than 3)

MRP design can be complex, and cost-control efficacy is highly dependent upon the design

- **MRPs are typically associated with many design decisions, and as such, vary significantly from state to state.**
 - Plan term
 - Attrition relief mechanisms (ARM)
 - Earnings sharing mechanisms (ESM)
 - Efficiency carryover mechanism
 - Off-ramps/re-openers
 - Incremental capital funding mechanisms
 - Additional cost trackers
- **Things to look out for in MRP proposals.**
 - MRPs that reduce regulatory lag without strengthening cost containment incentives
 - Inflated cost forecasts if used to set future revenue requirements
 - Revenue reconciliation mechanisms that true up overspend
 - Lack of mechanisms to share cost savings with customers
 - Lack of mechanisms to track/incentivize performance

Shared savings mechanisms (SSM) create an incentive to seek cost-efficiencies

- **A type of performance incentive mechanism (PIM) that rewards the utility with a share of the total cost savings that result from a particular action.**
 - Can be based on net benefits or strictly costs
 - Can also be structured to share cost over-runs between ratepayers and shareholders
- **SSMs could be effective for**
 - Energy efficiency – sharing net benefits
 - Non-wires and non-pipes alternatives – compared to more expensive capex solutions
 - Grid-enhancing technologies
 - Construction costs
 - Fuel cost variability
- **Example:**
 - Hawaii's collective shared savings mechanism (CSSM) incentivizes cost efficiency for all costs not incorporated in base rates (i.e., not subject to the cost containment incentive of the MRP), including fuel costs, purchased power, and certain cost trackers.

Capex-opex equalization strategies can level the playing field between capex and opex

What is It?

Capex bias leads utilities to prefer investing in capital over opex-based alternatives, even when they cost less or provide more benefits to customers. Capex-opex equalization creates an equivalent incentive for both opex and capex.

Key Benefits & Drawbacks

- Reduces or eliminates capex bias
- Narrow approaches are likely to be easier to implement and the consequences of getting them “wrong” more limited
- However, more comprehensive approaches can more thoroughly address capex bias, though they tend to be more complex and take longer to implement



For more information on totex ratemaking, see: [Making the Clean Energy Transition Affordable: How Totex Ratemaking Could Address Utility Capex Bias in the United States](#), RMI, 2022.

All-source procurement leverages the power of competition to reduce costs

- All-source procurement focuses on finding solutions to meet an identified grid need rather than on a particular type of resource preselected by the utility.
 - Allows diverse resources to compete, rather than predetermining the type of resource that needs to be procured, which can reveal ways to meet grid needs more cost-effectively.
 - Provides more flexibility to applicants to propose creative solutions to meet grid needs and enables a broader range of third parties to submit bids.
- For all-source procurement to be effective, it is important that:
 - Grid needs are clearly, and not too narrowly, defined
 - There is sufficient guidance to both utilities and third-party bidders around the bidding process and criteria that will be used to evaluate submitted bids
 - Independent parties are considered to manage the bidding process
 - Procurement processes are sufficiently coordinated with planning processes

Fully leveraging DERs can reduce operational costs and avoid unnecessary infrastructure investments

- Many existing DERs owned by customers and third parties are not being fully leveraged, leaving valuable benefits on the table
 - DERs, such as electric vehicles, distributed solar, batteries, smart thermostats, and heat pumps, are capable of providing a variety of grid services, including energy, load shifting, and a variety of ancillary services
 - By aggregating DERs, improving DER program and compensation design, and better harmonizing DER programs, DERs can potentially serve as more cost-effective resources to meet grid needs
 - However, fully leveraging DERs to support cost containment will likely require the use of a number of the levers identified in this framework (e.g., capex-opex equalization)

Carefully considering when capital cost trackers are appropriate can avoid amplifying utility perverse incentives

Regulatory options:

Review the impact of cost trackers on electricity bills over time

When setting utilities' authorized ROE, consider the impact of all cost trackers on overall business risk

Adopt a set of criteria for the circumstances in which cost trackers are appropriate (and deny them when criteria are not met)

- Include criteria for when cost trackers are no longer needed

Regularly review/revisit the continued value or benefits of cost trackers

Assess what cost trackers should be incorporated into base rates

Adopt mechanisms that can encourage cost containment for tracked costs

Well-designed time-varying rates can create system benefits and cost savings

- **By sending appropriate price signals when power and grid services are most constrained, time-varying rates can create:**
 - Bill savings for participating customers,
 - Near-term operational savings, and
 - In the long term, defer capital investments that the utility would have otherwise needed to make to serve peak load (both locally and at the system level).
- **Experience has shown that time-varying rates are more effective when:**
 - Customers have access to equipment that enables them to easily manage their loads and shift them in response to price signals
 - There are robust customer education and engagement efforts
 - They are offered as a default option (but with clear safeguards and opportunities for customers to opt out)
 - There is a sizable peak-to-off-peak ratio
 - They are adequately integrated into planning assumptions

Revenue decoupling can help neutralize the perverse incentive to increase profits by increasing sales

- Revenue decoupling addresses the throughput incentive.
- Specifically, a revenue decoupling mechanism (RDM) can neutralize the perverse incentive created by the rate structure.
- An RDM does this by truing up the utility's fixed-cost recovery to match its approved level — no more and no less!
- RDMs can remove a key barrier to energy efficiency and distributed generation.
- RDMs also offer other benefits, including:
 - Greater revenue stability for the utility
 - Greater utility support for time-varying rates
 - Preventing windfall profits from beneficial electrification
 - Preventing windfall profits from the changing climate
 - Maintaining affordability by reducing the need for new and replacement infrastructure

How an RDM Works

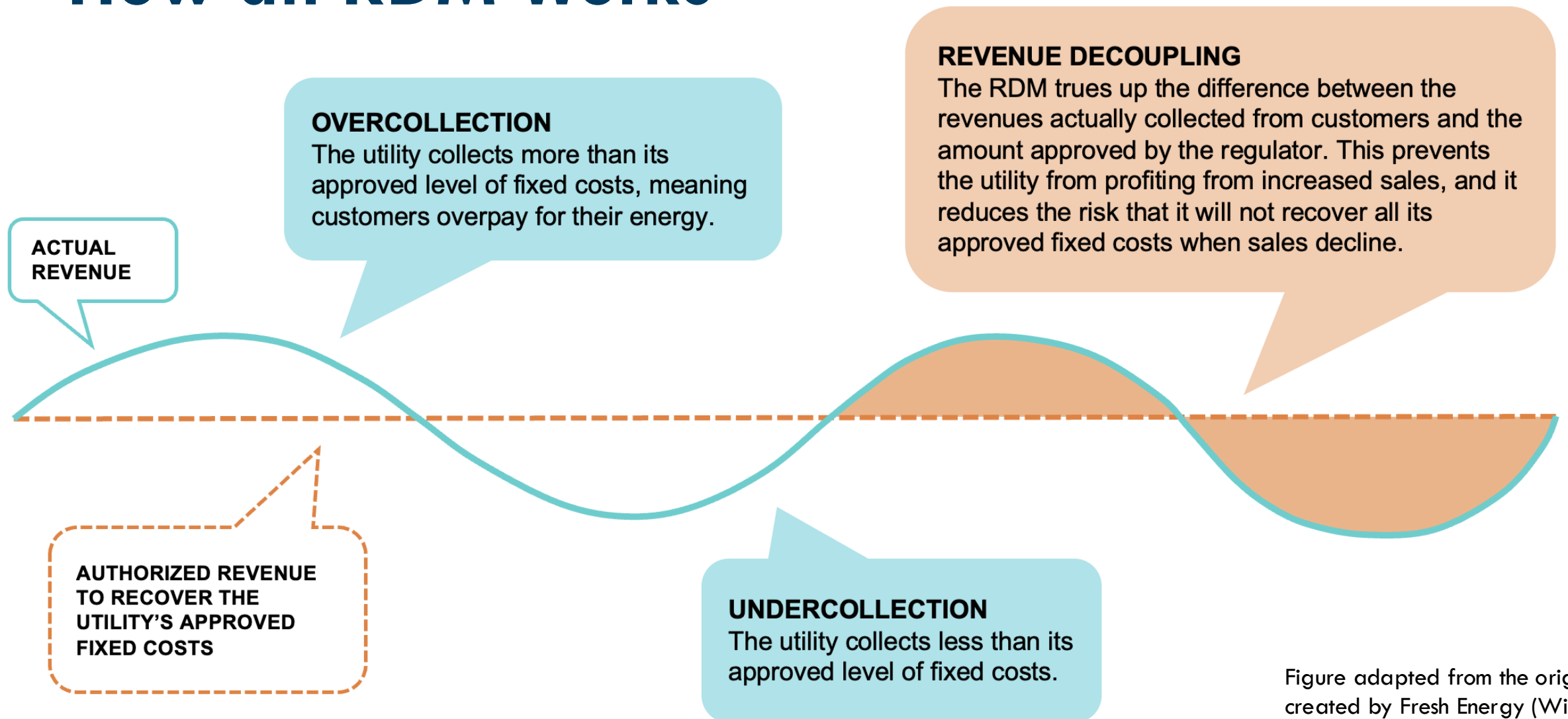


Figure adapted from the original created by Fresh Energy (Will Nissen, 2018)

Discussion

- What are the biggest cost drivers in your state right now? How do you see these changing in the next 5-10 years?
- What are the biggest challenges you face in advocating for better cost containment? What has been helpful in addressing those challenges?
- Of the levers/strategies we focused on, what do you need to better support your organization's efforts to either advance (i) these levers or (ii) reforms that would increase their efficacy?



Thank you

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