

Rate Decoupling and Associated Rate and Cost Issues



Jeff D. Makholm, Ph.D

National Economic Research
Associates, Inc.

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- Alternatives to Traditional Ratemaking
- Rate Design and Energy Efficiency
- Effects of Decoupling on Shareholders and Customers

- The rate *level*
 - Normal cost of service examined periodically in rate cases
 - Procedures for this have been set since the 1940s—part of American regulatory DNA

- Alternatives to traditional *rate level* determinations
 - Price Caps (PBR)
 - By joint agreement
 - Universally popular abroad (seen as a short cut)
 - Only marginally and episodically popular in the US (no short cut needed). Mostly used in telecom and oil pipelines.
 - Rate Freezes
 - Also by joint agreement
 - Problems of utility bankruptcy and rate shock

Traditional Ratemaking: Effects of Alternative on Energy Efficiency



- The key role of “regulatory lag” in American tariff setting:
 - Spend less than in the test year
 - Sign up more customers than in the test year
 - Have the meters spin more quickly than in the test year
- Price Caps are predicated on promoting competitive efficiency
 - There’s nothing in them dealing with social goals, as such.
 - Competitive-like incentives promote productive efficiency
 - There’s no competitive remedy to *externalities* (like carbon)
- Hooking up new customers or the spinning meters:
 - Energy efficient new hook-ups depend on efficient line extension policies—a somewhat obscure tariff issue
 - The “spinning meter” incentive is an issue for **rate design**.

- The narrative on rate design advances is more than a century long
 - Hopkinson tariff (1892)
 - Marginal cost pricing (1974)
 - Straight Fixed-Variable (1942 and then 1992)
- Unbundling and electricity market restructuring have focused attention on new problems
 - The appearance of natural gas in the 1920s-1950s took LDC's out of the gas manufacturing business
 - Electricity restructuring in New England took “electricity LDCs” out of the electricity manufacturing business

Rate Design and Energy Efficiency



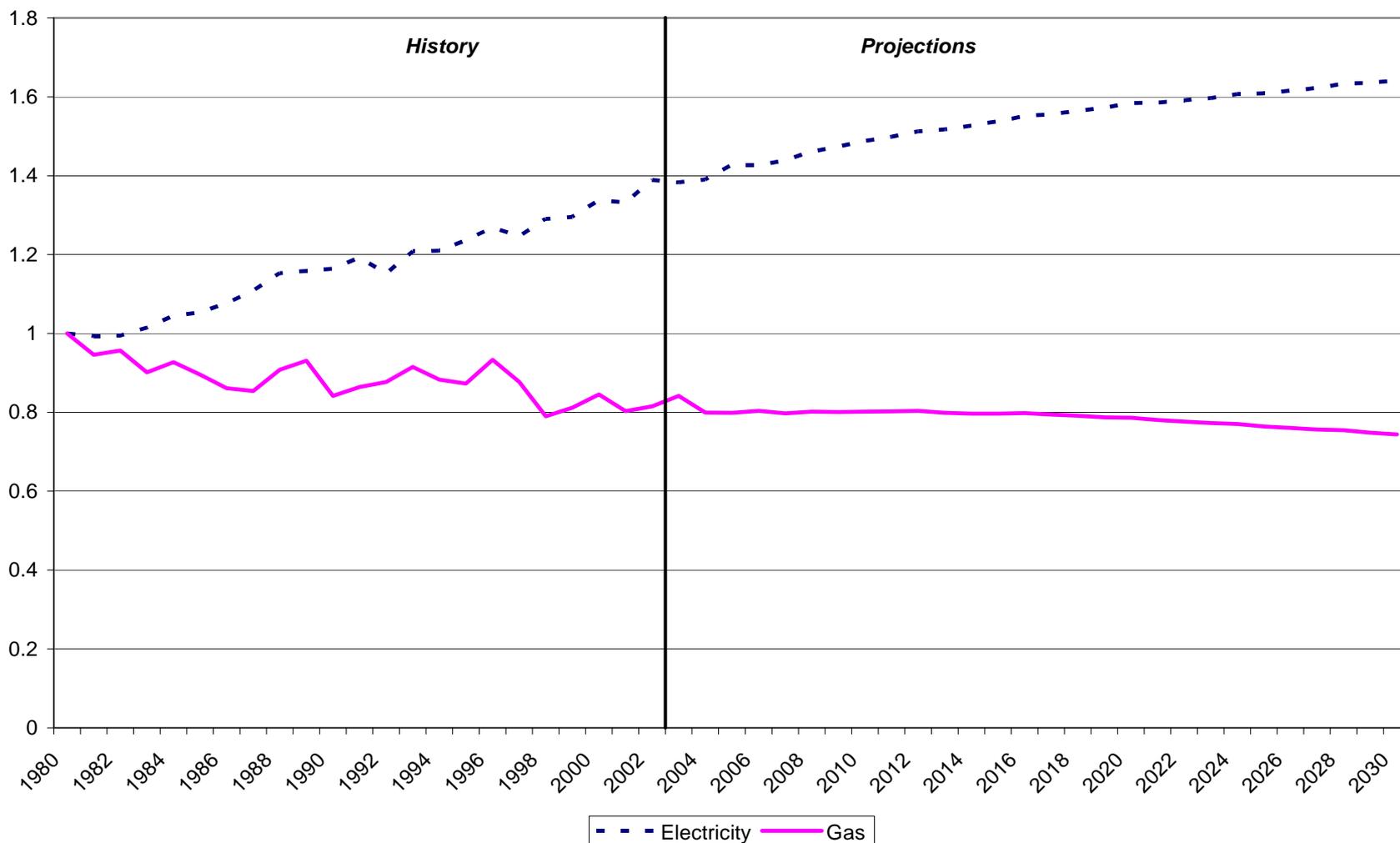
- LDC rate designs persist
- Commissioners are practical and politically-minded. Under normal circumstances they want what works, not the result of new thinking.
 - Only upheavals cause Commissioners to change basic rate forms—like those for interstate pipelines in the 1970s (volumetric weighting to inhibit gas use during the shortage) or the 1990s (straight fixed-variable as part of pipeline contractualization).
- Rate departments are inherently conservative.
 - That's understandable. Change in ratemaking formulae confront uncertainty and risks
 - Customer confusion

- Despite the structural industry changes, distribution costs rely on the spinning meters for collection
 - Growth in electricity and gas usage-per-customer has always been a way to deal with rising costs vis-à-vis filed rates
 - The meters are central to distributors' DNA, even though they no longer, as distributors, deal in the product—only delivery
 - Other network operators (cable, telecom) don't price this way
- The spinning meters leave distributors with a vestige of the old incentives to sell more electricity and gas
 - It is seen as contrary to energy conservation measures.
 - ...and it probably is...

Rate Design: The Problem for Distributors



Delivered Residential Energy Consumption per Capita by Fuel 1980-2030 (Index, 1980=1)



Source: Energy Information Administration

Rate Design: The Problem for Distributors



$$\text{Distribution Volumetric Rate} = \frac{\text{Distribution Cost}}{\text{Sales}}$$

Mostly fixed costs

Moving over time

■ Remedies

- Larger fixed component of distribution tariff.
- Adjust sales *ex post*.

Rate Design: The Problem for Distributors



- Distribution utilities recover their costs through small fixed monthly charge and a volumetric charge—the cost of electricity/gas and transmission are pass throughs.
- If the customer consumes the projected amount, then the utility will recover its costs. With increasing/decreasing usage, the utility will over/under collect, if current sales are used to set billing determinants.
 - But distribution is a shrinking part of consumers' gas bills
- In all, linking distributor profitability to energy consumption is old and an artificial regulatory construct.

Rate Design: Remedies for Interstate Gas Pipelines



- For interstate pipelines, the tariff structure problem was solved after major FERC battles over the structure of the contract tariffs.
- In the 1990s, “straight fixed variable” instituted
- Regular monthly bill based on customers’ leased pipeline capacity
- Does not depend on actual gas flow volume

Effects on Shareholders and Customers



- Decoupling and weather normalization are becoming the norm across the United States, making up for 19th and early 20th century distributor tariff design problems.
- It is not about companies vs. ratepayers bearing “risk”
 - Decoupling is not a risk issue: The regulatory compact still is the central protection for utility shareholder property.
 - Rate design, as such, is never generally a “risk” issue.
 - Deferrals and regulatory assets are risky, but only because of the inherent inability of regulators to commit their successors.
 - Besides, the “proxy groups” are moving toward decoupling
- For consumers, decoupling may not make much of a practical impact

- Updating regulation policies to address changes inherent in decades-old distributor tariff designs is a reasonable step and the focus moves again to energy conservation.
- Decoupling, in one form or other, frees distributors from the spinning meters.
- Decoupling does not constitute lessened “risk” as that concept is known in the market, for the regulatory compact still holds with respect to distributor costs
- The initiative is well underway, and very likely will spread to other states.