



Thompson Falls

Revenue Regulation and Decoupling

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Energy

Delivering a Bright Future



The path to the future.....

When you flip the switch, the lights go on. Electricity powers every aspect of modern life, yet we rarely consider the millions of details and dollars involved in the generation, distribution, regulation, and cost of selling—and buying—electricity.

Electric utilities are responsible for delivering electricity to every home, business, and public building in the United States. It's no easy task, especially when outside forces—technology, innovation, policy and economic changes—make the old ways of doing business obsolete.

Utilities are facing this dilemma today. The old business model—one based on selling more and more electricity—doesn't work anymore. As demand for energy declines, the appropriate public policies and business tools are required to keep utilities financially healthy and dependable—and able to provide safe, reliable, and cost effective utility services for consumers.

More and more, policymakers and regulators are realizing that the conventional utility business model, based on revenues (which includes profits) that are tied to sales, may not be in the long-run interest of utilities, their customers, and society.



Purpose of Presentation

Illustrate how traditional regulation is at odds with emerging utility trends and technologies, and the explicit public policy objectives that utilities are charged with, including:

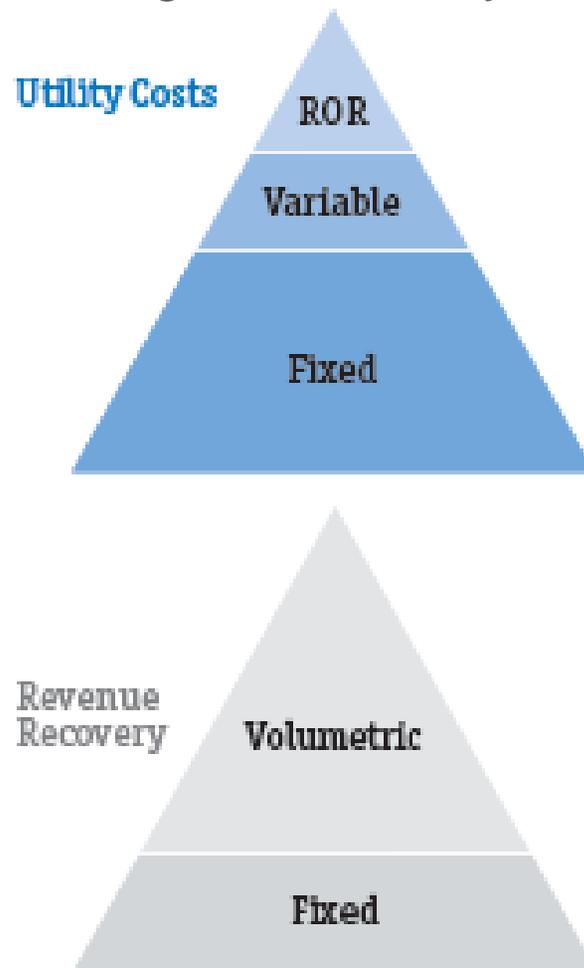
- Energy Conservation
- Distributed Energy Resources;
- Net Metering; and,
- Environmental Protection (aka, Clean Power Plan).

Provide a basic understanding of both the mechanics of traditional regulation, and the use of a regulatory tool known as *Decoupling*, as part a possible approach to help alleviate the financial impacts of such policy objectives on utilities.



Conventional Utility Revenue Mechanism

A utility's costs to provide customers service are largely fixed, whereas electric and natural gas commodity costs are variable.





Conventional Revenue Example

A utility's revenue requirement is the amount of revenues a utility will actually collect, only if it's costs and sales volumes are the same as when rates were set.

Traditional Regulation Example Revenue Requirement Calculation	
Expenses	100,000,000
Net Equity Investment.....	100,000,000
Allowed Rate of Return.....	10.00%
Allowed Return.....	\$10,000,000
Taxes (35% tax rate).....	\$5,384,615
Total Return & Taxes.....	\$15,384,615
Total Revenue Requirement.....	\$115,384,615

Price Calculation	
Revenue Requirement	\$115,384,615
Test Year Sales (kWh)	1,000,000,000
Rate Case Price (\$/kWh)	\$0.1154



Decoupling Revenue Example

There are three distinct steps used in Decoupling:

1. The determination of the utility's allowed revenues and determination of the rates necessary to collect those allowed revenues. This step is the same as that used in the conventional regulation process.
2. Monthly/annual calculation of the amount that actual revenues are over or under the amount of allowed revenues.
3. Prospective annual recovery or giveback of adjustments from/to customers to true-up revenues to the allowed level of revenues.

Decoupling Example Revenue Requirement Calculation	
Expenses	100,000,000
Net Equity Investment.....	100,000,000
Allowed Rate of Return.....	10.00%
Allowed Return.....	\$10,000,000
Taxes (35% tax rate).....	\$5,384,615
Total Return & Taxes.....	\$15,384,615
Total Revenue Requirement.....	\$115,384,615
Price Calculation	
Allowed Revenues	\$115,384,615
Actual Sales (kWh)	990,000,000
Rate Case Price (\$/kWh)	\$0.1154
Actual Revenues	\$114,246,000
Revenue +/- Difference	(\$1,138,615)
Allowed Revenues +/- Difference	\$116,523,230
Expected Sales (kWh)	990,000,000
Decoupling Price (\$/kWh)	\$0.1177



Ratemaking Equations

Traditional Ratemaking Equation

$$\text{Unit Price} = \frac{\text{Allowed Revenue Requirement}}{\text{Expected Units of Consumption}}$$

$$\text{Actual Revenue} = \text{Unit} \times \text{Actual Units Price of Consumption}$$

Ratemaking Equation With Decoupling True-up

$$\text{Allowed Revenue} = \text{Last Rate Case Revenue Requirement}$$

$$\text{Prior Period Over or Under Collection} = \text{Allowed Revenue} - \text{Actual Revenue}$$

$$\text{Unit Price} = \frac{\text{Allowed Revenue} + \text{or} - \text{Prior Period Over or Under Collection}}{\text{Expected Units of Consumption}}$$



Decoupling is a plausible option:

“While traditional regulation sets prices, then lets revenues float up or down with consumption, decoupling sets revenues, then lets prices float down or up with consumption.”



Disclosures

Disclosure of source material used to prepare this presentation:

- Article – Decoupling - A key tools for change, by Will Nissen
- Publication – Revenue Regulation and Decoupling, by The Regulatory Assistance Project
- Article – Decoupling Policies: Options to Encourage Energy Efficiency Policies for Utilities, by The National Renewable Energy Labs



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