

Decoupling and a Survey of Activity in the U.S. to Address the Throughput Incentive

Ohio Workshop on Electric Decoupling

February 4, 2009

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About the Regulatory Assistance Project

- RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. RAP Principals all have extensive utility regulatory experience.
 - Richard Sedano was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer.
- Funded by US Department Of Energy & Environmental Protection Agency, foundations, and international agencies. We have worked in nearly every state and 16 nations.
- Also provides educational assistance to stakeholders, utilities, advocates and others.



Policy Overview

- Energy Efficiency: **the challenge**
- Throughput Incentive: **a barrier**
- Decoupling: **an answer**

More generally, regulators are wise to consider the incentives in the businesses they oversee – are they sympathetic with the public interest or in opposition? And can they be changed (yes!)?



Ohio Energy Efficiency Targets

- Significant departure from business as usual
- Programs to address **market barriers** will be necessary to achieve targets
 - Price reform will not do it
- Utilities' full engagement will make success more likely with higher quality service
 - Policies will also support customer generation
 - Regardless of whether utility administers EE



Regulatory Priorities

➤ Revenue Requirement

- The principal outcome from a rate case
- Support wires and pipes system over time

➤ Prices

- The outcome of revenue requirement and billing determinants
- Important to consumers, but in what ways?

➤ Energy Efficiency **New**



Keep in Mind

- Revenue <<< focus of decoupling
- - Costs
- Net income

Decoupling addresses coverage of fixed costs regardless of sales
Ohio regulatory process focuses on non-commodity cost of service

Decoupling generally does not address net income



The U.S. Outlook

- Energy Efficiency getting more important
 - Pick your reason
- Some states see regulatory reform as necessary
 - Loading order
 - Cost recovery systems for energy efficiency
 - Decoupling ***
 - Performance Incentives



Grades of Decoupling

- Full – insulates utility revenue from any sales deviation between actuals and expecteds
- Partial – part of revenue change is insulated, part is not
- Limited – Sales adjustments due to energy efficiency programs only, so weather and economy are normalized in an extra step



EE Effects on Sales Only or All Sales Changes?

➤ Risk

- Is risk shifted by decoupling or reduced?

➤ Weather

- Why should weather affect utility financial performance?

➤ General Economy

- Why should economic cycles affect financials?




Design Goal

- Over time, utility revenues track what frequent rate cases would have produced



Revenue per Customer Advantages

- Revenues track more closely with what rate case would likely produce
 - Fixed Costs track # of customers
 - Avoid rate cases
 - Relook every 3-5 years as structural changes to cost of service occur



Accrual vs. Current Price Adjustments

- Accrual is standard
 - Price adjusted annually, or perhaps quarterly, based on actual deviation from forecast
- Current can be accomplished, essentially collecting the appropriate revenue requirement in each billing cycle (used in Maryland)



Cost of Capital

- Decoupling takes variability out of utility revenues and coverage of fixed costs
 - Business risk is reduced compared with same utility in traditional regulation
 - Combine decoupling and rate case to value
- Wtd Avg cost of capital can be reduced by changing debt/equity ratio or ROE



Idaho (Idaho Power)

- Seen as a pilot for 3 years (CY 07-09)
 - PSC staff or company can say “quits”
- Revenue per customer
 - 54% of revenue requirement is fixed costs
- Limited decoupling
- Partial decoupling: res and sm comm
- Annual true up
 - Annual cumulative rate change capped: 3%



Idaho

- Connected to Idaho Power commitment to do energy efficiency
 - 1.5% of revenues
 - Performance incentives with penalty potential also allowed
- Initial rate adjustment was down



Vermont (third party EE administration)

- Both IOUs under a decoupling plan
- Revenue cap (forecasted for future years)
 - Dead band, adjustable for exogenous factors
 - Adjustments triggered if actual are outside
- Partial decoupling
- Earnings sharing outside a collar
- Dead band for power cost variation
- Rate change capped
- ROE adjustment



Maryland

- Full decoupling for PEPCO
 - BGE expected???
- Revenue per customer
- True up monthly
 - Cap of 10%
- ROE adjustment



California

- Decoupling in place for all three IOUs
- Revenue cap
 - Future test year
 - Attrition case captures inflation, productivity



Oregon (third party EE administration)

- Portland General Electric, 2 years (09-10)
 - Approved coincident with a rate case
 - Evaluation required, discussion encouraged
- Revenue per customer
- Deferrals at a risk free (Treasury) rate
- Small ROE reduction



Oregon PUC Order 09-020

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“... PGE does have the ability to influence individual customers through direct contacts and referrals to the ETO. PGE is also able to affect usage in other ways, including how aggressively it pursues distributed generation and on-site solar installations; whether it supports improvements to building codes; or whether it provides timely, useful information to customers on energy efficiency programs. We expect energy efficiency and on-site power generation will have an increasing role in meeting energy needs, underscoring the need for appropriate incentives for PGE.”



Wisconsin Public Service

6690-UR-119

- Full decoupling
- Rules for range of under or over collection that will be adjusted and what will not
- Connect to added energy efficiency spending and other climate change policy



Other State Implementation

- Minnesota
- Massachusetts
- Connecticut
- New York

In these states, there is a recent legislative or commission directive to adopt or consider decoupling. The implementing activities are in varying stages.



Performance and Decoupling

- Performance indicators are useful to assure continued service quality
 - Addresses possibility that utility would cut costs and compromise essential services
 - Categories
 - Reliability
 - Customer service
 - Other public interest priorities



Decoupling Can Be Poorly Executed



Where Has Decoupling Gone Wrong and Why?

➤ Maine

- Coincident with economic slowdown
- Accumulated deferrals over two years

➤ Washington

- Linked in to expensive PURPA contracts

➤ Both cases would have led to similar rate increases under traditional regulation but could have been designed much better



Decoupling Not Sufficient if Promoting EE is the Goal

- Decoupling serves to diminish or eliminate the incentive to sell, or the disincentive to lose sales
- Decoupling does nothing to promote diminished sales
- A performance incentive system is a desirable part of decoupling
 - EE can be subject of a performance system



Suggested Alternatives to Decoupling

- Business as Usual
- Lost Revenue Adjustment Proceedings
- Straight Fixed Variable Rate Design



Lost Revenue Adjustment

Pros

- Clear focus on revenue effects of energy efficiency

Cons

- Strains EM&V process with contention
- Requires choice of avoided cost dataset
- Costly in dollars and regulatory time
- Utility always in a position of clawing back what is “lost”
- Broader effects on wires system are not included




Straight Fixed Variable

Pros

- Set rates, no administration

Cons

- Raise bills to low use customers by large %
 - Damage value to customer of reduced energy use
 - Interfere with use of rates for “smart pricing”
 - Confuses short run and long run marginal costs, corrupts effect of price on long run investment
- 



Business as Usual

Pros

- Participants are used to it
- Consumer protections in place, such as they are, including stable price

Cons

- Throughput incentive in force and associated incentive conflicts
- Actual revenues inevitably diverge from rate case result
- Better opportunities for other innovations to promote public interest
- Rate cases needed more frequently



Customer Perspective

- Savings potential to total cost of service from EE >> decoupling adjustment
- Current volumetric rates actually reflecting long run marginal costs (reflecting forecasts of construction, commodity, and environmental mitigation costs)
 - LRMC >> SRMC



Decoupling and the Utility of the Future

- The utility of the future
 - Emphasis on service (not throughput)
 - Emphasis on customers and service area
 - Public policy an important guide
 - Emphasis on risk management
 - Emphasis on local energy resources
 - Regulation focuses on whatever is most important



Demonstration of Decoupling

- Excel Spreadsheet Model
- Produced in the Mid-Atlantic Distributed Resources Initiative (MADRI)
- Uses actual PPL data
- Backcasting a useful way to appreciate choices and scale of rate adjustments



Thanks for your attention

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