

Alternatives To Decoupling

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Alternatives to Addressing Utility Profit Loss

- Lost Margin Recovery Mechanisms
- Rate of Return Incentives
- Shared Savings Mechanisms
- Fixed / Variable Rate Design
- Real-Time Pricing
- Moving Efficiency Outside the Utility



Lost Margin Recovery Mechanisms

Minnesota, Adopted 1995

Example: Hawaii, 1992 – 2006

- All sales reductions resulting from utility-funded EE offset by a surcharge reflecting lost margin (rates minus fuel cost).
- Unintended consequence: 15 years without a general rate case – surcharges for measures installed in year 1 continued for 15 years.
- Utility sales increased steadily, with no new power plants, so “lost margin” argument was relatively weak.



Lost Margin Recovery Mechanisms

- Does not remove sales incentive. Utility profits still grow when sales increase.
- Best financial outcome is when EE fails early, but is not detected. Utility benefits from both lost margin recovery and additional sales.
- Measurement intense – lots of room for squabbles.
- Does not address rate design issues that are potential barriers to energy efficiency.
- Utility still exposed to weather-driven variations in sales volumes, business cycle, etc.
- Does not change fundamental financial risk of utility.



Shared Savings Mechanisms

- Utility invests in energy efficiency
- Utility is awarded a portion of the value of the energy savings
 - One-time payment, offsetting investment
 - Payment over time, like an ESCO
- Minnesota DSM Financial Incentive Plan is an example
- Does not change fundamental financial risk of utility



Rate of Return Incentives

- Washington (1980 – 1990): 2% bonus for return on equity for efficiency investment.
- Encouraged maximum spending on measures with minimum savings.
- Did not reduce sales incentive.
- Electric utility invested heavily in heat pump retrofits in mobile home parks – in part to prevent migration to natural gas.
- May enable a lower “base” ROE, if the bonus produces a weighted average return acceptable to the financial community.



“Property Right” in Revenues for Efficiency

- By 1992, energy efficiency investment had reached 10% of Puget Power Rate Base.
- Investment community was skeptical, as the utility did not “control” the investment, and it was not subject to bond lien.
- Legislature responded by creating a “property right” in the revenues, so even in case of municipalization or liquidation, the revenues for EE were recoverable from consumers.
- Designed to solve one problem only: financial community resistance. Expected to address fundamental financial risk.
- Not very well-received; by 1996, Puget converted new EE programs from capitalized to expensed.



Fixed / Variable Rate Design

- \$30/month + variable energy cost
- Does eliminate the sales incentive for utility
- Does not address the barriers to efficiency for consumers.
- Weakens consumer incentives for self-initiated efficiency.
- Adversely impacts low-use customers, including urban and multi-family customers with lower-than-average distribution costs.
- May attract uneconomic load – space heating and water heating – due to low commodity cost.
- Without TOU prices, invites surging growth in on-peak loads like air-conditioning, space heating.
- Does reduce fundamental financial risk of utility, perhaps allowing a lower cost of capital.



Real-Time Pricing

- Can eliminate the throughput incentive by pricing incremental usage at short-run incremental cost.
- Often advocated by market theorists
- Criticized by advocates of long-run marginal cost pricing.
- May require large increases in fixed charges
- Consumers do not like the volatility.
- Does not address the barriers to efficiency investment by consumers.
- Metering may be uneconomic for small consumers.
- Typically addresses only the generation component of pricing – distribution capacity costs can be significant at the margin.
- May reduce the fundamental financial risk of utility, allowing a reduction in the cost of capital.



Moving Efficiency Outside the Utility

- Successful examples:
 - Efficiency Vermont
 - Energy Trust of Oregon
- Utility collects and remits revenue to third party
- Efficiency company has no exposure to lost utility margins.
- Efficiency provider has no exposure to lost margin.
- Utility cooperation normally requires legislation.
- May not optimize geographic focus of investment without utility cooperation.



Summary

- Many alternatives to decoupling address some of the same barriers – but do not reduce the financial risk of the utility.
- Pricing alternatives may reduce financial risk, but may be unacceptable to consumers, and do not address the barriers to efficiency investment by consumers.
- Moving efficiency outside the utility may be a promising strategy if utilities remain resistant to efficiency, but there is a duplication of customer contact effort, and a loss of coordination with T&D planning.