


Regulatory Barriers and Opportunities Eliminating Disincentives, Creating the Right Incentives

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The Effect of Energy Efficiency on Utility Profits

- With a fully-reconciled fuel clause, every lost sale means lost profits.
- Even without a fully-reconciled fuel clause, if retail rates are above short-run market prices, every lost sale means lost profits.
- The numbers can be very large – a 1% reduction in sales can mean a 5% reduction in profits.



Cost-Effectiveness of Efficiency is Not the Issue

- EE has the same energy and capacity values as generation facilities, transmission lines and distribution facilities.
- EE is considerably cheaper than most supply-side alternatives, lowering total revenue requirements



Regulatory Barriers

- Regulatory practice does not really support EE investment.
- Unless it is modified, utilities will carefully contain their EE investments.
- It usually takes broad stakeholder consensus to modify current regulatory practice.



Two Ways a Utility can Increase Profits

➤ **Increase Sales**

➤ **Reduce Costs**

➤ **Guess which is more fun?**



Alternatives to Address Utility Reluctance

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



Lost Margin Recovery Mechanisms

- Does not remove sales incentive.
- Best financial outcome is when EE fails early.
- Measurement intense – lots of room for squabbles.
- Does not address rate design issues
- Experience in Hawaii particularly frustrating – 13 years and counting.



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.
- Utility invested heavily in heat pump retrofits in mobile home parks – to prevent migration to natural gas.



Fixed / Variable Rate Design

- \$30/month + variable energy cost
- Eliminates sales incentive
- Destroys consumer incentives for self-initiated efficiency.
- May attract uneconomic load – space heating and water heating.
- Without TOU prices, invites surging growth in on-peak loads like air-conditioning.



Real-Time Pricing

- Often advocated by market theorists.
- Hated by consumers due to volatility.
- Uneconomic metering for small consumers.
- Only addresses generation component of pricing – distribution capacity costs can be significant at the margin.



Moving Efficiency Outside the Utility

- Efficiency Vermont (Efficiency Maine?)
- Energy Trust of Oregon
- Utility collects and remits revenue
- Efficiency company has no exposure to lost utility margins.
- Willingness of utilities to cooperate requires legislation.
- May not optimize geographic focus of investment without utility involvement.



Revenue Normalization Mechanisms

- Establish an approved revenue requirement, and adjust rates as needed over time to sustain it.
- Breaks the sales incentive.
- Reduces volatility of utility earnings
- Allows management to focus on reducing costs – which will benefit consumers after next general rate proceeding.



Examples of Revenue Normalization Mechanisms

- CA - All gas & electric IOUs
- MD, OR -- gas only (MDPSC, Calvin Timmerman; contact in ORPUC, Lisa Schwartz)
- NC- Piedmont Gas
- DC- Washington Gas (Rick Morgan, DCPSC)
- NJ - gas filings pending for NJ Natural Gas (NJBPU, Mike Winka)
- OH - gas filings pending for Vectren (Ohio Consumers' Counsel, Janine Migden-Ostrander)
- WA – gas filings pending for PSE and Cascade



Elements of a Revenue Normalization Mechanism

- Determine “revenue per customer” in general rate proceeding.
 - By class
 - System Overall
 - May exclude resource costs if there is a fuel / purchased power mechanism.
- Measure actual revenue variations (due to weather, conservation, economic changes and other causes.)
- Apply a true-up mechanism over future months or future year.



Benefits of a Revenue Normalization Plan

- Stable earnings for the utility
- Eliminates concerns about conservation, fuel switching, or other sales reductions.
- Rating agencies like the stable earnings; utility can have a lower equity capitalization ratio for the same bond rating.
- Customers on budget billing have fewer adjustments / delinquencies.



Five Point Plan for Achieving Consensus on Decoupling

- Significant Energy Efficiency Investment Commitment
- Good Rate Design
- Capital Structure Adjustment
- A Collar on Maximum Possible Adjustment
- Periodic Rate Cases