


Aligning Utility Incentives with Public Policy Objectives

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Conflicting Objectives: Efficient Use of Resources

- Public policy should seek to maximize value of resources
- Customers seek to minimize total cost
- One customer's inefficiency increases costs to other customers



Conflicting Objectives: Utility Profits

- Utility seeks to maximize profit
- Traditional framework:
 - Profits are a function of sales volumes (kW and kWh)
 - Profits highly sensitive to small changes: 1% change in sales equate to about a 100 basis point change in profits
 - TOU Rates makes on-peak sales more important to profits
- Applies to all utilities, but problem is magnified for distribution-only (wires only) companies



The Challenge

- Maximization of utility profits should coincide with efficiency goals
- Two-parts:
 - Removing disincentives
 - Optionally adding positive incentives
- Objective should be to put utility in same place it would have been without energy efficiency
 - Regulatory choice should not impose shortfalls or windfalls



Regulatory Choices: Three Options -- One Solution

➤ Lost Revenue Adjustment

- Measure revenues lost from specific efficiency programs and restores those revenues to utility
- Applies only to identified efficiency programs
- High maintenance costs (M&E)
- Difficult to measure and verify
- Utility may profit from measures that don't actually improve efficiency savings
- Throughput incentive still present



Regulatory Choices: Three Options -- One Solution

- Use fixed charge for distribution services
 - Removes savings opportunities for customers
 - Premised on intuitive but false notion that distribution costs are fixed and should therefore be recovered through fixed charges
 - In the long-run all costs are variable
 - Gives customer false signal that usage is disconnected from costs



Regulatory Choices: Three Options -- One Solution

- Adjustable Revenue Stability Tariff
 - Driven by per-customer revenue calculation
 - Allows utility profits to grow with customer growth
 - Mitigates revenue (and profit) volatility occasioned by weather and other exogenous factors
 - Eliminates disincentives for energy efficiency
 - Encompasses all efficiency not just specific programs
 - Low litigation/administration cost
 - No sophisticated M&E required



One Approach: Baltimore Gas & Electric

- Implemented as a “rate rider”
- Adjustment computed monthly
- Uses simple per customer revenue calculation to recalibrate rates on a monthly basis
- Uses balancing mechanism to avoid inadvertent over- or under-collection
- Starting point for Mid-Atlantic Distributed Resources Initiative (MADRI) Model Tariff



Issues to Watch For

- Avoid annual or longer adjustments
 - Leads to larger changes in rates
- Provide triggers for review
 - When adjustment gets outside a pre-determined range
 - Significant changes in customer makeup
- Recognize difference between revenue characteristics of marginal versus average customers
 - Otherwise windfalls or shortfalls are certainty
- Overall, simple is probably better



Additional Resources:

- Website: <http://www.raonline.org>
- *Issuesletter: Regulatory Reform: Removing the Disincentives to Utility Investment in Energy Efficiency* (September 2005) –
<http://www.raonline.org/Pubs/IssueLtr/RAP2005-09.pdf>
- **Mid-Atlantic Distributed Resources Initiative** – <http://www.energetics.com/madri>