What do Regulators Really Want?

BEHAVIOR, ENERGY AND CLIMATE CHANGE CONFERENCE

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Creating A Greener Energy Future For the Commonwealth

Regulators are Guardians

Regulators must ensure that ratepayers’ dollars are well spent on effective and cost-effective energy efficiency.
How can we characterize regulators? (with apologies)

- Regulators are often economists, lawyers, engineers.
  - Operate in a world of carefully defined rules,
  - Goals are quantified with exactitude
    - Expenditures are closely monitored
    - Monetary rewards are often tied to performance
      - Uncertainty is not highly valued
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What do Regulators/Guardians Care About?

- Benefits and costs of energy efficiency
- Impact on society (including environmental and market changes)
- Impact on customer bills
- Impact on customer rates
- Impact on the need to build more generation
MA primary indicators for Review

- Goals v. goal achievement in MWh and MW
- Achievement of negotiated performance metrics
- $ spent /Lifetime MWh saved
- $ spent/Lifetime Mw saved
- Value of sales avoided by electric savings
Traditional program themes

- Capture “lost opportunities” (e.g. building an efficient structure where savings persist for many years)
- Acquiring resource savings – replacing an incandescent light bulb with a compact fluorescent.
- Changing markets so they deliver energy-efficient goods/services
- Are the programs running well, getting the widgets to the customers in a friendly, effective efficient manner?
Regulators aren’t comfortable with hard to measure effects

- Free riders (though often considered important)
- Spillover – vague understandings of what it means
- Attribution – so you paid incentives for 100 bulbs and you want credit for 130? – where are the other 30?
- Behavioral changes that have little cost but possibly large effects
  - Setting back thermostats
  - Turning off lights
  - Effects that may be quickly extinguished v. lasting behaviors.
Now we want to measure behavior and practices. How do we do that?

• Accuracy
• Precision
• Overcome sample and other biases
• Provide Credible, Understandable Results about dynamic, changeable effects, that may or may not last over time?
Regulator’s Dilemma

How do you decide to delay or avoid building a power plant or a transmission line when the behavior of many individuals is key to the decision?