National Regulatory Research Institute

Aligning a Utility's Interests with the Promotion of Energy Efficiency: How Should State Commissions Choose among the Several Ratemaking Alternatives?

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I. What does Section 410 of the American Recovery and Reinvestment Act say?

A. Appropriate State regulatory agency will "seek to implement" in appropriate proceedings for each electric and gas utility, a general policy that:

1. Ensures that utility financial incentives are aligned with helping customers to use energy more efficiently

2. Provides timely cost recovery and a timely earnings opportunity for utilities achieving cost-effective, measurable and verifiable efficiency savings

3. Sustains or enhances utility customers' incentives to use energy more efficiently

B. Presumed meaning and effects of using "energy more efficiently"

1. Customers receiving the same energy service such as cooling, hot water or warmth

2. Less energy input (therms or kilowatt-hours) required because of increased appliance efficiency or building shell efficiency

3. Customers incur higher initial costs for appliances and other energy-using equipment in exchange for lower energy costs over time

4. The utility sells less energy, which under conventional rate structures means a decline in earnings

5. Not synonymous with economic efficiency — like everything else, energy efficiency has a cost and we can have too much of it

C. Four aspects of ratemaking for state commissions to consider

1. Cost recovery of utility energy-efficiency actions

2. Utility recovery of lost margins from energy efficiency

3. Explicit utility-performance incentives for cost-effective energy efficiency actions

4. Rate design that determines the marginal price during different periods

D. Relevant questions for state commissions

1. What is the meaning of “seek to implement in appropriate proceedings:” I presume here that a commission will examine, or has already examined, different ratemaking and cost-recovery mechanisms that can comply with section 410.

2. What ratemaking or cost-recovery mechanisms have the ability to align utility financial incentives with the promotion of energy efficiency? What are the trade-offs associated with each mechanism?

3. What would constitute a commission providing a utility with adequate incentives to aggressively promote all cost-effective energy efficiency?

4. What ratemaking or cost-recovery mechanisms can provide a utility with timely cost recovery and earnings opportunity?

5. Are these mechanisms only applicable to those utility energy-efficiency initiatives that are cost-effective and for which energy savings are measurable and verifiable?

6. What ratemaking or cost-recovery mechanisms would not diminish customers’ incentives to use energy more efficiently?

7. Does section 410 go beyond eliminating disincentives by endorsing positive direct incentives?

8. How does section 410 differ from the section 532 PURPA 111(d) standard of the Energy Independence and Security Act (EISA) of 2007, titled “Rate Design Modifications to Promote Energy Efficiency Investments”?

II. How States have responded to section 410 – examples from SEARUC states

A. Alabama

B. Florida

C. Georgia

D. North Carolina

III. What different ratemaking mechanisms encourage (or at least not discourage) energy efficiency? What have states done?

A. Revenue decoupling rider

B. Lost revenue adjustment mechanism

C. Straight fixed-variable rate design

D. Earnings sharing (e.g., "rate stabilization") mechanism

E. Shared savings incentive

F. Performance target incentive

G. Rate of return adder

H. Cost-recovery rider

I. System benefits charge

J. Inverted and non-declining rate structure

K. Real-time or dynamic pricing

IV. How should a commission select a particular ratemaking mechanism or a combination of mechanisms?

A. Ratemaking requires state commissions to consider and make decisions on mechanisms that have differing effects on regulatory objectives, with most advancing some regulatory objectives while impeding others

B. Making trade-offs among ratemaking objectives that best serves the public interest poses a difficult challenge for state commissions

C. The standard requirements for "just and reasonable" rates and policy-based objectives

1. *Core principles of ratemaking*: (a) rates reflect the costs of an efficient or prudent utility; (b) rates reflect the cost of serving different customer classes and of providing different services and

different level of services; (c) rates allow a prudent utility a reasonable opportunity to receive sufficient revenues to attract new capital; and (d) rates avoid undue price discrimination

2. *Policy-based objectives* (e.g., public acceptability, rate stability and gradualism, equity or fairness, affordable utility service, efficient consumption, promotion of specified social goals such as energy efficiency)

D. Section 410 implicitly tells state commissions to consider energy efficiency as a major objective of ratemaking

E. A three-step process for regulatory ratemaking decisions

1. Define the public interest in terms of ratemaking objectives and the weights assigned to individual objectives

2. Understand the performance of each ratemaking method in advancing and impeding different objectives (which requires unbiased information and analysis)

3. Apply a decision-making rule that is consistent with advancing the public interest given the information available and the weights assigned to individual objectives; promoting energy efficiency is just one objective (other objectives listed above), whose weight depends upon a commission's preference for promoting energy efficiency relative to other objectives

References

1. Ken Costello, *Decision-Making Strategies for Assessing Ratemaking Methods: The Case of Natural Gas*, NRRI 07-10, September 2007, at http://www.nrri.org/pubs/gas/07-10.pdf.
2. Ken Costello, *Revenue Decoupling for Gas Utilities*, NRRI 06-06, April 2006, at http://www.nrri.org/pubs/gas/06-06.pdf.