Topics on Electric Utility Regulation: A Workshop

New Jersey Board of Public Utilities

Presented by Richard Sedano

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Introducing RAP and Rich

• RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. RAP staff have extensive utility regulatory experience. RAP technical assistance to states is supported by US DOE, US EPA and foundations.
  – Richard Sedano directs RAP’s US Program. He was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer.
  – David Littell is a principal in RAP’s US Program. He was a Maine PUC Commissioner and Environment Commissioner and is an attorney.
Workshop Topics

• Rate Design Opportunities
  – Presentation and discussion
• Clean Energy Administration
  – Presentation and discussion
• Technology Deployment and Data Management and Access
  – Presentation and discussion
• **Utility Performance and Redefining the Utility Role**
  – Presentation and discussion
Utility Performance and Redefining the Utility Role Segment

Is return on performance the icing?  
Is return on performance the tasty middle inside?
What Metrics of Utility Performance Are Most Important to You?
Rate Utilities on Performance

REPORT CARDS
- Math: A+
- English: A+
- Science: B+
- History: A-
- Attendance: A
Outcome Based Regulation: What is it?

• Enterprise wide

• Output Metrics affecting everything utility does
  – Value to customers, other public interest outcomes
  – All employees can contribute to at least one metric (merit pay)
  – Most powerful if performance levels are aggressive
    • Potential substitute for policy mandates
    • Make the sale to the public: “Rewards are legit”

• A “meaningful” portion of utility net income from performance compensation
  – Not just the icing on the cake – performance is the cake
Outcome Based Regulation: Steps

• Determine public interest outcomes from utility service
  – Identify priority outcomes, based on statute, adapted
  – A public exercise (like e21 in MN), changes over time
  – “protect” and “progress”

• Identify utility outputs that support these
  – Select a diverse set for use in financial formula
    • Substitute in subsequent rounds

• Levels drive innovation, efficiency, quality
  – **Benchmarking** challenge
  – Allowance for **recalibrating** (fail forward)
  – “**protect**” metric levels will tend to be steady
  – “**progress**” metric levels will tend to move

Utility is already measuring important performance categories
Outcome Based Regulation: Implementation

• Balancing **role of regulator** to guide the performance process with getting the benefits of performance motivation and with adapting to accelerating changing conditions
  – Regulators would change focus and relax on “inputs”
  – This requires a fully formed performance system to reinforce idea that it can substitute for input focus and metrics will reveal if it can be superior
Outcome Based Regulation: Implementation

• Managing a lot of information
  – Some of it new to the regulator

• Local differences
  – Strategic value
  – Equitable distribution of clean energy resources and incentives may no longer be consistent with utility mission, unless public policy backstop requires it
Outcome Based Regulation: Implementation

• Creating stability for utility to go to work
  – Long term horizon
  – And expectations and incentives to do better

• In a competitive environment, metrics for customer and competitor success are important
  – Especially if utility is allowed to compete in any way

• Attention to publicizing “alignment” to win customer confidence
  – “Here is how you are better off...”
  – Managing failure (hint: we learn if we survive)

• Role of regulator changes, unlikely to be smaller
Figure 2. Dimensions of Utility Performance That May Warrant Tracking or Incentives

- **Innovation**
  - Customer engagement
  - Customer-targeted services
  - Flexible Resources

- **Resiliency**
  - Customer service
  - Smart grid
  - Energy efficiency

- **Traditional Goals**
  - Reliability
  - Power plant performance
  - Employee safety
  - Public safety
  - Lower costs

- **Environmental Goals**
  - Renewable energy
  - Reduced emissions
  - Improved load factor
  - Reduced losses

Utility Performance and Redefining the Utility Role Segment

Is a return on performance the icing?
An addition to ROE of a few % or basis points or cents per share?

Is return on performance the tasty middle inside?
Can return on performance a significant % of total earnings?
Is this sufficient to induce action motivate utilities to improve performance?
Prevailing Attitude: Why Change Regulation?

- **Staffs** (utility and regulatory and advocates) accustomed to standard practice
  - Decision-makers may lack vision, innovation
- Public does not understand the business
  - Including opinion leaders, **accountability gap**
- Wall Street (source of capital) might get spooked if performance actually mattered
  - Just don’t mess up and everyone will be OK
Changing Regulation is Attractive if Outcomes Matter

• First flickers of performance regulation emerged with the cataclysms of nuclear plant disallowances and competitive generation markets
  – Promote \textit{productivity} improvements
  – Promote \textit{reliability/service} outcomes
  – Promote \textit{public policy} priority outcomes
  – Promote \textit{stability}
Change is Attractive if Outcomes Matter

• A crisis helps
  – High rates (Hawaii, NY, CA)
    • Especially a rate spike (Maryland)
  – A reliability disaster (MD, NY)
    • Climate is a motivator in some places

• Visionary leaders help a lot

• New technology can change the dialogue
  – Create net gains that can be shared
Typical Utility View of Performance Regulation

“No Good Deed Goes Unpunished”

- Oscar Wilde
“I see here several good deeds that seem to have gone unpunished.”
Reliability Performance

• Generally, places with reliability performance standards focus on avoiding the bad performance on outage frequency and duration, and on penalties
  – For example, MI and VT rules offer refunds to affected customers for failure to restore service in a reasonable timeframe
  – Many other ways to penalize a utility
Iowa – Mid-American: Rate Cap

• Desire for stable rate performance
  – Fifteen years of capped rates: popular
    • With ratepayer dividends and excess company returns from power sales
    • Rates could have been lower, but more volatile
  – No specific focus on service outcomes
• Energy efficiency performance is fair, has plateaued
Iowa – Mid-American: Rate Cap

• A rate cap by itself may be popular but is not conducive to improved performance or productivity
  – Sales rise
  – Revenue rises
Energy Efficiency Performance

- States that reward for energy efficiency performance
  - Shareholder incentive
  - 1/3 of states or more
  - Is reward enough to hold CEO attention?
States with EE Performance Stds
UK: OFGEM Leads on Performance
and yet is still in the starting blocks

• In the 90s, came out with productivity-based PBR in a market-based system
• Presently converting to a carbon-based strategy of enterprise-wide performance
  – RIIO: Utility Revenue =
    • Incentives
    • +Innovation
    • +Outputs

With emergent technology and services, will the role of the utility, and how to evaluate its performance, change very soon?
Focus on total cost serves to remove bias between Operating and Capital Expns
New York Indicating Interest in Enterprise-Wide Performance

• Performance has been incidental in regulation
  – Noticed when it is absent
  – Rewards, when available, are small
• There is more interest in performance regulation in the US today than I have seen
• NY REV would count on performance system
What Targeted Utility Activities can we Link to Performance?

- Reliability
- Service
- Satisfaction
- Safety
- Rates (level, volatility)
- Total cost of svc.
- Social goals

- Energy efficiency
- Customer Generation
- Resource diversity
- Competitive activity
- Environmental performance
- Innovation ...
Opportunities for More

• With technology producing solid information, there will be more opportunities to measure more of importance which can turn into a useful utility metric
  – Data to customers
  – Responsive, integrated customers
  – Targeting customers for specific offers
  – Revealing system performance
Some Key Issues

- Flexibility v. Certainty
- Forward focus
- Utility Control of metrics
- Changing the standards
- Value of rewards beyond just reporting
- Manageability (BPU staffing)
No State is Committed to OBR  YET

Probably New York

• A state would be serious about OBR if ...
  – A significant share of the utility earning were based on performance

• What is significant?
  – Enough

• Enough to neutralize urge to invest in assets and put performance on the same tier of priority as assets

OBR = output-based regulation
Performance-Oriented Earnings

- Weighted Average Cost of Debt
  - Earnings available from overall utility performance
- Earnings from rate base investments
  - Return on Equity determined by the BPU
  - Cost of debt allowed in rates
  - Return on investment
Performance-Oriented Earnings

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Return on investment
How Does the “Utility of the Future” Happen?

• **Service** (not throughput) the priority
• **Customers**: service and resources
• Public Policy - Driven
• Risk Management to manage cost
• Information to make decisions
• Regulation focuses on value, protection
“... PGE does have the ability to influence individual customers through direct contacts and referrals to the ETO. PGE is also able to affect usage in other ways, including how aggressively it pursues distributed generation and on-site solar installations; whether its supports improvements to building codes; or whether it provides timely, useful information to customers on energy efficiency programs. We expect energy efficiency and on-site power generation will have an increasing role in meeting energy needs, underscoring the need for appropriate incentives for PGE.”
“The commission understands the importance of and supports the concept of delinking electricity sales from revenue. However, existing automatic adjustment mechanisms appear to unduly insulate the HECO Companies from the need or urgency to make major adjustments to current utility management and operational practices, thus offering no motivation to implement strategies and action plans that may be more conducive to serving the public interest.” (The order goes on to discuss performance-oriented regulation to focus the utility on a “sustainable business model,” using the term “virtuous cycle” to represent the PUC’s vision.)
About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power sector. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

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