Performance-Based Regulation To Achieve the Hawaii RPS

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Overview

- All Regulation is Incentive Regulation
- Brief History of PBR
- Hawaii Incentive Regulation to Date
  - The Energy Cost Adjustment Clause
  - IRP Process and DSM Cost Recovery
  - Hurricane Iniki and other sad stories
- Fixing the Energy Cost Adjustment Clause
- Revenue-Cap Decoupling
- Simple RPS Achievement Reward
- Customer Service Quality Index

All Regulation Is Incentive Regulation

- Rate of Return regulation
  - Averch-Johnson Effect: gold-plating
- Future Test Year
  - Inflate projected costs / hide growth
- Fuel Adjustment Clause
  - Rely on fuel-heavy resources
  - Don't hedge fuel costs
  - Focus on labor and other "at-risk" costs

Definitions

- **Performance-Based Regulation:** A system of regulation which rewards the utility based on their achievement of specific performance measurements.
  - Cost, reliability and adequacy of service
  - Quality of customer service
  - Fuel use efficiency
- **Incentive Regulation:** A system of regulation which provides a means for the utility to earn a higher return over a multi-year period if it is able to reduce expenses associated with providing service of undiminished quality.
  - Measure present conditions
  - Set realistic goals for improvements
  - Reward utilities for improvement toward the goals

Brief History of PBR

- Sliding-Scale Plans: bonus return to utilities with biggest reduction in price. UK (1855); Massachussetts (1906)
- Regulatory Lag: incentive to control costs due to lag in getting rate relief.
- Multi-Year Rate Plans: Only way to increase profits is to reduce cost, but a multi-year perspective.

NARUC Resolution - 1990

- Utility's "most profitable" plan should be it's "least-cost" plan.
  - Consider lost earnings due to reduced sales
  - Allow investment in DSM
  - Provide earnings incentives for investment in least-cost resources

Revenue Caps and Decoupling

- Focus on customer bill, not price per kWh.
- Set allowable revenue based on cost
  - Distribution - only or Total Bill with Energy
  - Adjust annually to true up for sales deviation
  - $RPC_2 = RPC_1 + \text{Inflation} - \text{Productivity}$
- Washington PRAM (1990)
- California ERAM (1993)
- Oregon (2003)

PBR Experience in Hawaii To Date

- Regulatory Lag
  - HECO out since 1993
  - DSM Lost Margin / Cost Recovery
  - HELCO Puna CT in mid-1990s
- Hurricane Iniki
- Capital Project Review
- Energy Cost Adjustment Clause

Fixing the Energy Cost Adjustment Clause

- Problem 1: An ECAC makes every incremental sale profitable, and every lost sale unprofitable.
- Problem 2: The Hawaii ECAC contains perverse incentives for operation of high-cost diesel generating units.
- Problem 3: Fuel costs are so huge that eliminating the ECAC is not an option.

ECAC Option 1: Fix the Quantity

- Cap the amount of fuel that can be trued up in any year at the level of the test period. If load growth means fuel consumption growth, the utility is at risk.
- Will tend to reduce the current bias the utility has in favor of fuel-intensive resources over renewables and DSM.
- Provides for price protection.

ECAC Option 2:
Power Cost Adjustment Clause

- Include all fixed and variable costs in the ECAC
- Sales growth means fixed costs get divided by increasing denominator. Prevents the "HECO" problem of 1993 - 2003
- Example: Puget PCA
- Eliminates bias for increased throughput.
- A form of power cost decoupling.
- Reduces risk to utility

Revenue Cap Decoupling

- Set Revenue Per Customer (RPC) in rate case.
- Can be coupled with Power Cost Adjustment
- Between rate cases, allow delivery revenue to grow by defined RPC.
- True up sales variations annually
- Typical adjustments have been <2% per year in California and Oregon.
- Puget PRAM died for unrelated reasons

Simple RPS Achievement Incentive Mechanism

- Annual determination by Commission of whether utility has achieved RPS.
- If utility meets RPS, it gets a1% rate surcharge across all rate schedules.
- If the utility fails to meet RPS, it gets 1% rate credit across all rate schedules.
- Utility can file a rate case to recover "penalty" if it can prove it deserves an exception under the legislation.

Customer Service Quality Index

- **Many PBR plans have resulted in diminished customer service quality.**
- **SQI measures multiple aspects of quality, and imposes penalties if service falls below criteria.**
- **Example criteria:** SAIDI, SAIFI, Disconnect Ratio, Complaint Ratio, Time-to-answer phone, missed appointments, worker safety.
- **Penalty up to 1/2% of revenue. Paid annually.**
- **Essential element of any PBR that allows for multi-years between rate cases.**