



Incentive Regulation and Customer Service Quality

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Overview of Presentation

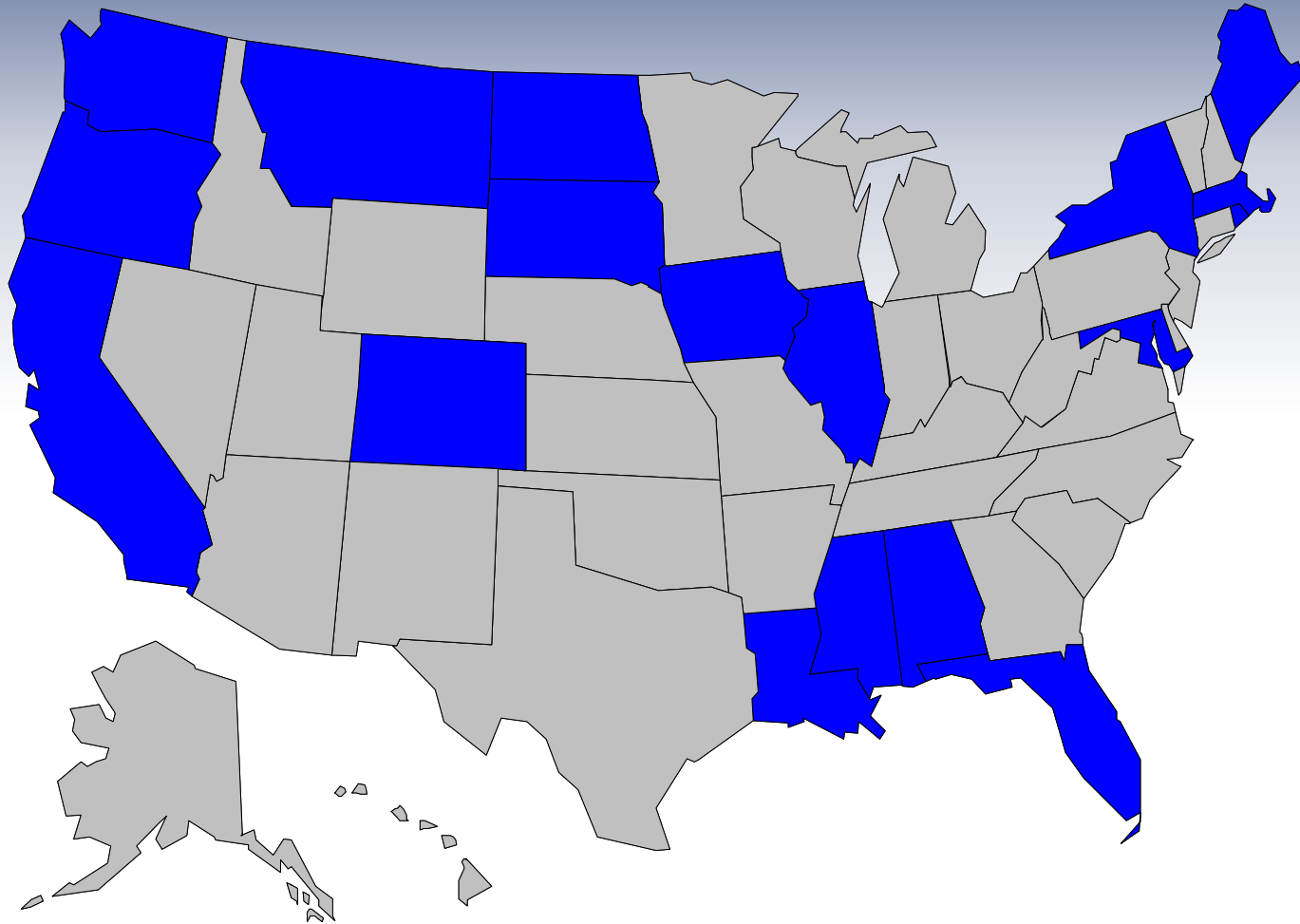
- ❑ Comparison of incentive regulation in U.S. telecom and electricity industries
- ❑ Service quality and incentive regulation
 - U.S. telecom industry
 - U.K. experience
- ❑ Service quality mechanism options
 - Monitoring and Complaint
 - Q Factor
- ❑ Implications for electricity industry

Incentive Regulation in U.S. Network Industries

- ❑ Various forms of incentive regulation have been present for almost 30 years
 - Rate freeze
 - Earnings sharing
 - Price caps
- ❑ Comparison of telecom and electricity
 - Widespread adoption in telecom industry
 - Electricity started later and has not evolved as much

A map of the United States with state boundaries outlined. Most states are filled with a solid blue color. A group of states, including Alaska, Arizona, Idaho, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming, are filled with a solid gray color. The map is set against a white background.

States With Incentive Regulation Electricity



Reasons for Different Adoption Patterns

- ❑ Our paper identifies four reasons for difference between telecom and electricity
 - Sponsorship by federal regulators
 - Institutional factors related to legacy of previous regulatory regimes
 - Quality/reliability concerns
 - Technological change and competitive pressures

Incentive Regulation & Service Quality Experience in U.S. Telecommunications

- ❑ Empirical studies do not find a relationship between incentive regulation and service quality
- ❑ No significant impact of any regulatory policy on telephone service quality

David Sappington, “The Effects of Incentive Regulation on Retail Telephone Service Quality in the United States,”
Review of Network Economics, Vol. 2, Issue 4 – December 2003.

Incentive Regulation & Service Quality Experience in the UK

“an important argument for the privatization of BT had been the expectation that it would improve quality of service.”

“Companies vied with each other not to be at the bottom of the quality of service league tables; and thus in turn facilitated the regulatory specification of higher Standards of Performance over time.”

Stephen Littlechild, “Reflections on Incentive Regulation,” *Review of Network Economics*, Vol. 2, Issue 4 – December 2003

Service Quality Regulation

Two Approaches

- ❑ Monitoring & Complaint Approach
 - Set standards and deal with performance and individual problems through penalties
 - Used frequently in telecom industry
- ❑ Q Factor Approach
 - Symmetrical incentive based approach using rewards as well as penalties

Monitoring and Complaint Approach

- ❑ Monitoring system gathers information about service quality parameters
- ❑ Penalties imposed when firm fails to meet standards
- ❑ Quality problems generally dealt with on a case-by-case basis
- ❑ May have different policies for persistent problems

Q Factor Approach In Principle

- ❑ Includes rewards and penalties depending on measured quality relative to standards or benchmarks
- ❑ Basic Components
 - Indicators of company's quality of service
 - Associated service quality benchmarks
 - Means of assessing quality of service
 - Method for translating quality assessment into rate or revenue changes

Q Factor Award Mechanism

- ❑ Award mechanisms determine the adjustments in rates or payments that are warranted by the achieved level of service quality
- ❑ In principle, awards and penalties should reflect customers' values and costs of each service attribute
- ❑ Important design issues include symmetry of awards and penalties and the allocation of benefits between the company and its customers

Service Quality Challenges in Electricity Underinvestment in Transmission

- ❑ Underinvestment in transmission is a major concern in the electricity industry
- ❑ Insufficient transmission means lower service quality and higher costs in the electricity industry
 - Higher levels of congestion
 - Higher power losses
 - Lower reliability
 - Imperfect competition in the generation market
 - Higher than optimal costs

Service Quality Challenges in Electricity Underinvestment in Transmission

- ❑ This problem developed under cost of service regulation, or remnants thereof
- ❑ It can be argued that this problem developed *because* of cost of service regulation
- ❑ Therefore, much effort is needed to develop an incentive-based regulatory program that will lead to efficient business decisions in the electricity industry

Incentive Regulation & Service Quality In Summary

- ❑ Incentive regulation has been slow to develop in the electricity industry partly due to concerns over service quality
- ❑ But, empirical studies fail to find a relationship between service quality and incentive regulation in other industries
- ❑ And, other countries like the UK have successfully implemented incentive programs
- ❑ So, we should look to develop better incentive structures to address the growing challenges we face in the electricity industry