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Foundations of Electric Utility Regulation

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Components of Electric Sector Have Different Levels of Regulation

In areas of CA with Investor-Owned Utilities:

- Generation – Largely deregulated
- Transmission – Some large projects bid competitively, all others in regulated utility
- Distribution – Completely regulated
- Energy Procurement and Retailing – More than half of demand served by community choice aggregators (CCAs)

Cost-of-Service Regulation Faces Two Inter-related Challenges

- Assuring efficient operation
 - Compensating IOU's costs, not more or less
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- Both challenges create incentive issues and information issues

Efficient Operations

- Not wasting resources
- Using an efficient mix of inputs
 - Such as capital versus labor or fuel
- Delivering optimal product quality
 - Difficult to know how much quality customers want to pay for

Appropriately compensating IOU costs

- For most costs, this is straightforward once the regulator has established that the firm has incurred the costs prudently
- But cost of capital can be more difficult, particularly the cost of equity investment
 - cost of debt is fairly clear from bond pricing
 - cost of equity investment subject to great dispute
- Every utility – IOU, municipal, or co-op – has a cost of capital

Cost and incentive impacts of setting allowed return on equity

- Setting return on equity too high
 - Directly raises bills for ratepayers
 - Incentivizes utility to overinvest in capital
- Setting returns too low can lead to underinvestment and can undermine quality of service

No Silver Bullet Solution

- “Free market” competition isn’t a serious option for distribution systems and much of the transmission grid
 - Retail competition has had mixed results
- Government ownership creates a different set of incentive concerns and inefficiencies
- Performance-based regulation also faces information challenges, as well as credibility issues under extreme outcomes

THANK YOU!

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