IT TAKES TWO

UTILITY INFRASTRUCTURE SPENDING

Susan L. Satter
Sr. Assistant Attorney General

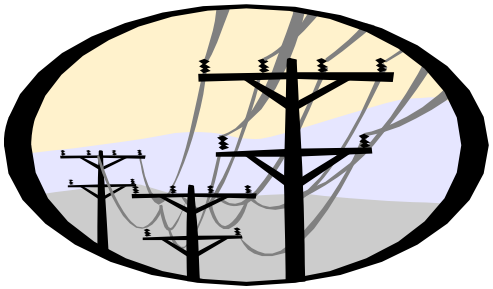
Institute For Regulatory Policy Studies - October 20, 2011

DISCLAIMER

- My comments are mine alone
- My comments are not the formal position of Attorney General Madigan or of the Office of the Attorney General
- My comments are informed by more than 20 years participating in utility regulation

The Basics

- Utilities are capital intensive, network industries
- Due to beneficial economies of scale, utilities are generally recognized as natural monopolies
- We assume that more consumption leads to lower unit cost
- What about efficiency and conservation?



Can efficiency reduce costs?

- Illinois Public Utilities Act

- Energy efficiency and demand-response measures.

  Sec. 8-103. (a) It is the policy of the State that electric utilities are required to use cost-effective energy efficiency and demand-response measures to reduce delivery load. Requiring investment in cost-effective energy efficiency and demand-response measures **will reduce direct and indirect costs to consumers by decreasing environmental impacts and by avoiding or delaying the need for new generation, transmission, and distribution infrastructure**. It serves the public interest to allow electric utilities to recover costs for reasonably and prudently incurred expenses for energy efficiency and demand-response measures.

  Natural gas energy efficiency programs

  Section 8-104(a): It is the policy of the State that naural gas utilities and the Department of Commerce and Economic Opportunity are required to use cost-effective energ efficiency **to reduce direct and indirect costs to consumers**.

Can efficiency reduce costs?

- Reduced demand → reduced wear and tear on distribution infrastructure, including reduced line loss and unaccounted for water

- Reduced peak demand → reduced need to invest in expanded facilities

- Reduced demand due to efficiency should lead to reduced *long term* infrastructure and investment costs.

Infrastructure Investment Still Needed for Reliable Service

- Utilities are capital intensive, network industries
- Need for private capital recognized in the Regulatory Compact

- Revenue Requirement =

Costs + (invested capital x rate of return)

The Rules: Investor Interests

- A prudent investment is an investment decision by a public utility which at the time it is made takes account of the costs and trends in costs of various possible ways of providing service, the prospective demand over time, and the methods by which such service may be provided. The method which promises most economically to provide those services is chosen and the utility conducts the actual investment procedure efficiently and by a policy free of fraud. The long run goal is to provide the service needed as cheaply as possible. The traditional regulatory compact does this. **The regulatory compact or bargain is a sensible arrangement by which shareholders are told how they are going to be treated and lend money on that basis and the utility is told by its commission on behalf of ratepayers how it should conduct itself within specified rules of efficiency or prudency in order to be paid a compensatory rate of return.**
- George J. Stigler, Nobel Prize Laureate and Professor Emeritus in the Department of Economics of Business at the University of Chicago, 1988

The Rules: Consumer Interests

- The Commission has the responsibility of balancing the right of the utility's investors to a fair rate of return against the right of the public that it pay no more than the reasonable value of the utility's services. While the rates allowed can never be so low as to be confiscatory, within this outer boundary, if the rightful expectations of the investor are not compatible with those of the consuming public, it is the latter which must prevail. *Camelot Utilities,* 51 Ill.App.3d 5,10 (1977) & *Citizens Utility Board v. Illinois Commerce Comm'n,* 276 Ill.App.3d 730 (1995).
- The purpose of regulation is to protect consumers from the unfettered power of monopolists. Not to protect the revenue stream or profit level of those monopolists. Scott J. Rubin, Testimony before the Illinois Commerce Commission, Docket 10-0467

Investor Concerns

- Investor Considerations
  - Other available investments of corresponding risk and commensurate returns
  - Long term nature of investments
- Risks associated with return on utility investment
  - Size of rate increases resulting from investment
  - Rate continuity and gradualism
  - Public and political acceptance of rate levels
  - Decreased demand due to high prices
  - Substitution, where possible

Investors' Dance Partner

- Consumer Interests Affecting Investment
  - Affordability
  - Predictability
  - Access to essential service
  - Monopoly status
  - Economies of scale

The Dance

- Investors assess reasonableness of investment: What will regulators allow?
- Regulators assess reasonableness of investment: What should consumers pay?
- Consumers pay

The Dance

- Investors and utility management assess the prudence of investment.
- Assessment based on cost-effectiveness and the expectation that regulators will require consumers to fund investment.
- The regulatory climate.
- Investments' effect on rate levels and regulators' willingness to increase rates key factors in investors' investment decisions.

Challenges to investors

- Investors are not guaranteed a return
- Fairly assessing the rate impact of investment
- A reasonable return is not the highest rate of return: There is "no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures." *Bluefield Water Works*, 262 U.S. 679 (1923)
- "Widow and orphan" stock: Utilities are boring but very predictable. USA Today, Sept. 23, 2011

Challenges for Consumers

- Electricity, natural gas, water and waste water service, telecommunications are essential to modern life
- Dangers to health and safety if access to electricity, natural gas (heat), and water and wastewater service restricted or denied.
- Increasing reliance on telecommunications and the Internet.
- Monopoly – No or limited choice or substitution of service provider.
- Inelasticity of demand.

Challenges for Consumers

- Illinois median household income: $53,974
  - Cook County median household income: $52,516
  - DeKalb County median household income: $51,087
  - Madison County median household income: $50,628
  - Peoria County median household income: $47,330
  - Adams County median household income: $41,582

- Illinois per capita income: $28,469
  - Cook Count per capita income: $29,021
  - DeKalb County per capita income: $23,500
  - Madison County per capital income: $25,873
  - Peoria County per capita income: $27,299
  - Adams County per capital income: $23,941

Source: Quick Facts from the US Census Bureau

Challenges for Consumers

- Percentage of Illinois individuals and families in poverty grows:
  Individual poverty rate 2000-2009: 11.4% to 14.3%
  Family poverty rate 2000-2009: 8.6% to 9.9%

- Illinois poverty rate in 2009 by county: 13.3%
  Cook County poverty rate: 16.0%
  DeKalb County poverty rate: 17.0%
  Madison County poverty rate: 13.1%
  Peoria County poverty rate: 16.8%
  Adams County poverty rate: 15.7%

- Poverty Income in America
  - Family of 1 = $10,956 per year
  - Family of 2 = $13,991 per year
  - Family of 3 = $17,098 per year
  - Family of 4 = $21,954 per year

Challenges for Consumers

- In six northern Illinois counties, drop in median household income between 2000 and 2007:

  DuPage County *down* $11,005

  Cook County *down* $4,580

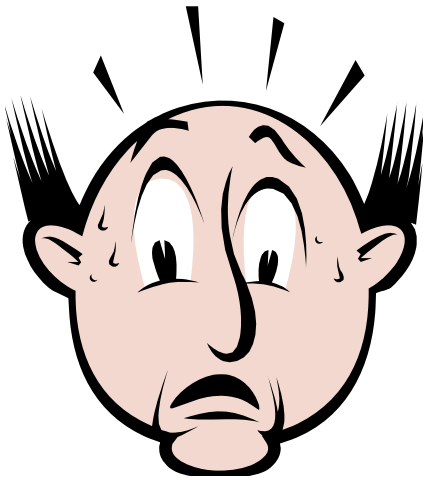
Income distribution in Illinois

- Households with income < $50,000: 2,213,000
- Households with income between $50,000 and $100,000: 1,505,000
- Households with income >$100,000: 1,041,000

When things go wrong

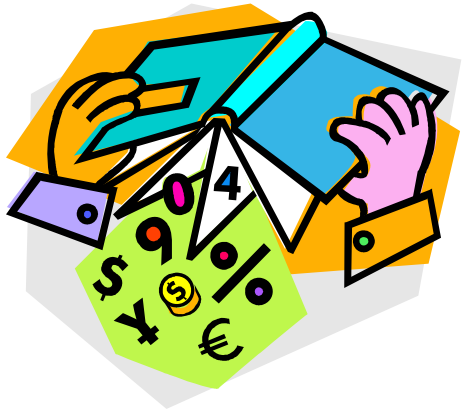
- When is a rate increase request too high?

  - 20.4%
  - 23.56%
  - 32.7%
  - 63.5%
  - 68.9%
  - 101.9%
  - 245.0%
  - 272.7%
  - 440.0%



Must Ask: Why So High?

- Inadequate planning
- Inadequate maintenance leading to premature replacement
- Imprudent investment
- Investors insensitive to rate impacts
- Accounting discrepancies or irregularities
- Excess capacity
- Lumpy investment



Considering the Effect on Consumers

- Avoid Rate Shock: Interest in rate continuity and gradualism should limit size of increases

- Protect Affordability: When are rates "too high"?
  - Rate surveys
  - Benchmarking

- Community specific assessments
  - How much can consumers bear?
  - Available assistance programs

One Model:
Financial Capability Assessment

- EPA mandates for expensive environmental controls
- Publicly owned water and waste-water utilities
  - Lack profit motive to invest in infrastructure
  - Funds provided at lower cost through municipal bonds
- Factors in determining investment size and schedule
  - Residential Household Impact
    - Total cost per household as percent of median household income
    - Unemployment rate
    - Median household income
    - Bond rating
    - Overall net debt as percent of full market property value
    - Property tax revenue collection rate
    - Property tax revenue as percent of full market property value

Should privately owned utilities do a Financial Capability Assessment?

- Reasonable and prudent investment should incorporate an assessment of the cost of investments for consumers
- Regulatory process and review should also include an assessment of whether the cost of investment to consumers is within a zone of reasonableness
  - Factors related to the reasonableness of charges:
    - Local median income
    - Local housing and utility costs
    - Whether resulting rate is low, average, or high for the State
    - Local poverty rate
    - Available assistance programs

Are all infrastructure investments welcome?

- Regulatory compact invites private investment in monopoly service.
- Provides private investors an *opportunity – not a promise* -- to receive a market return on their investment in the utility.
- Responsibility of investors to assess the impact of their investment on rates.
- Assessment of rate impact an important constraint on utility, monopoly investment
- If rate impact too great, rate increase must be reduced.

Dancing with Oneself

- One investor: the effect of wholly owned utility subsidiaries

- Investment Riders:
  - Erosion of the regulatory compact by changing parties' expectations
  - Elimination of risk
  - Investors need not consider the effect of increased rates on consumers
  - Utility management loses the incentive to operate efficiently and within a budget between rate cases
  - Consumers lose the benefits of rate continuity and gradualism
  - Regulators lose the ability (or potential ability) to constrain rate increases resulting in inefficient curtailment of services and public dissatisfaction

Conclusion

It takes two:

Investors with the money

Consumers who pay the bills

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