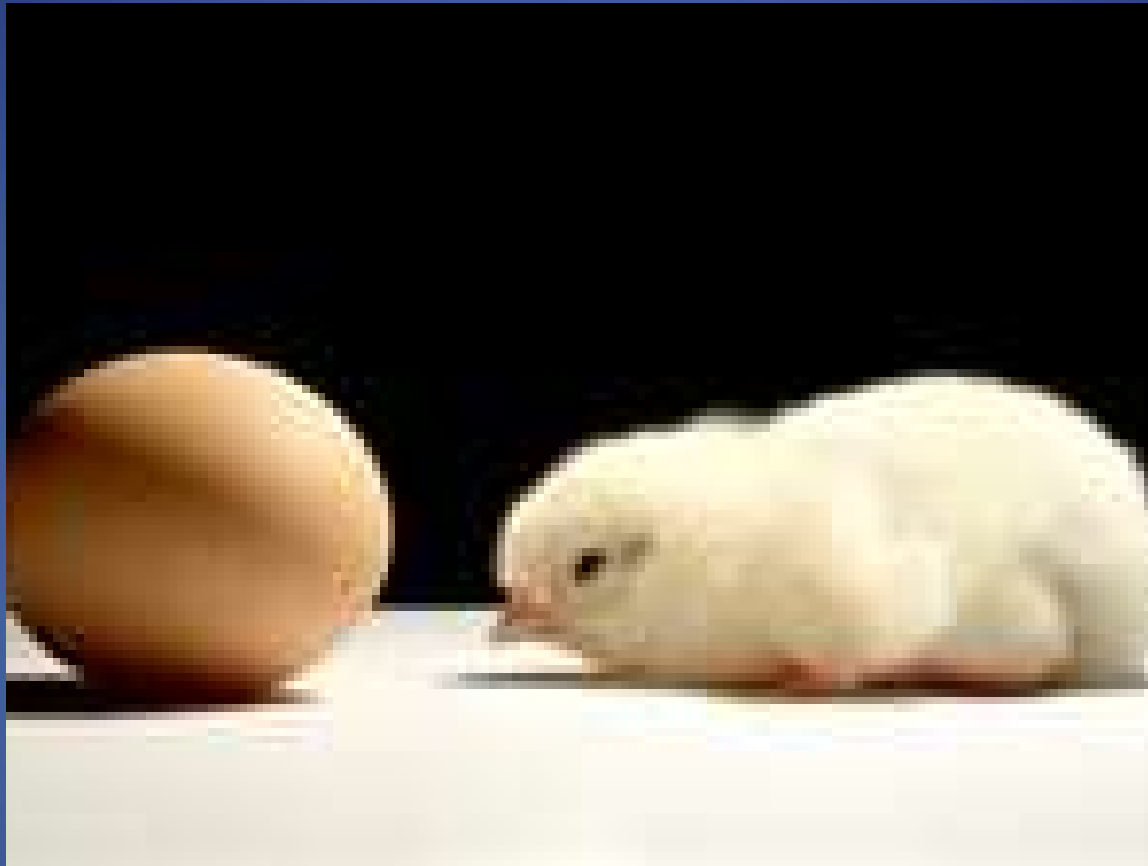


# BARRIERS TO INVESTMENT IN NEW INFRASTRUCTURE

Chairman Charles E. Box  
Illinois Commerce Commission  
December 8, 2008





**NEW INFRASTRUCTURE IS A CHICKEN &  
EGG PROBLEM.**

# Chicken & Egg Problem

*What comes first???*

- Build Transmission
- Build Generation
- Change Ratepayer Behavior
- Provide Ratepayers the Proper Price Signal



# Overview

This is a discussion of the challenges that can discourage or impede investment in new infrastructure.



# Energy Infrastructure

- GENERATION
- TRANSMISSION
- DEMAND SIDE MANAGEMENT & SMART METERING TECHNOLOGY
- HUMAN CAPITAL



# Challenges

- Accessing affordable credit.
- Influencing political will.
- Leveraging current infrastructure.
- Coordinating projects.



# Access to Credit



- THE CREDIT *CRUNCH!!!*
- The cost of capital.
- Ability to access short term debt.
- Rating agencies' influence.



# *The Credit Crunch*

Increases the difficulty to pay for:

- operating and capital expenditures
- reliability improvements
- economic improvements
- innovative projects
- load growth

...And stresses customers' budgets





# Short-Term Credit Needs

- Transmission and energy purchases.
- Operating and maintenance expenditures.
- Payroll.
- Equipment expenditures.

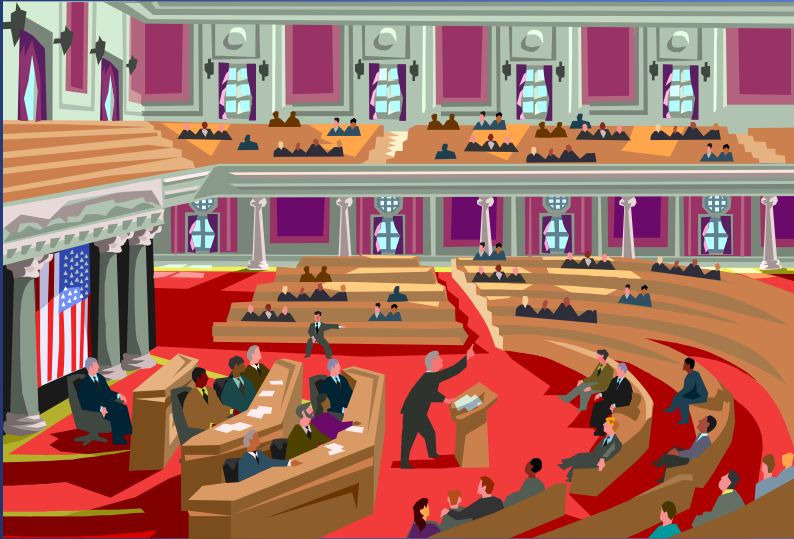


# Corporate Credit Ratings

- Ability for public utilities to access capital is directly tied to their ratings.
- Need a regulatory climate that fairly balances utility and ratepayer interest.
- Utilities may be unwilling to make investments if cost recovery is at risk.



# Political Will



- Political Structure & Policy
- Community Outreach
- Necessity
- Demand



# Political Structure & Policy

- New U.S. Administration & New Policy Goals.
- The greening of political will and policy.
- The influence of economic and socio-economic constraints.



# The Need for Green

Cost of green initiatives:

- Renewables
- Supply & Demand of renewable manufacturers
- Oil/Gas/Coal Generation
- Demand side & Smart meters technologies
- Transmission Grid
- Energy policy



# Community Outreach

- Rate Shock
- Rate Mitigation
- NOT IN MY BACK YARD
- Ratepayer Behavior
- Proper Price Signal



# Leveraging Current Infrastructure

- Aging infrastructure
- Reliability improvements
- Renewable upgrades
- Stranded cost



# Coordination

- Debate over project significance.
- Designate how project cost will be shared.
- Craft a comprehensive plan.







**Determining what is best for us?**  
**TAKES TIME...**

# Centralized vs. Distributed Generation

## Central Dispatch Stations

- Generates energy from a centralized energy source
- Far away from load
- Requires transmission to transport the energy
- Loss of energy

## Distributed Generation

- Generates energy from many small energy sources
- Close to load
- Reduces the need for power lines
- Reduces amount of energy lost in transmitting electricity

# Globalization

- Cross border power flow
- Currency stability
- Volatility
- Importation of fuel
- Fuel transportation
- Scarcity
- Geo-politics

