IMPLEMENTING POWER SECTOR REFORM

Introduction to power sector regulation
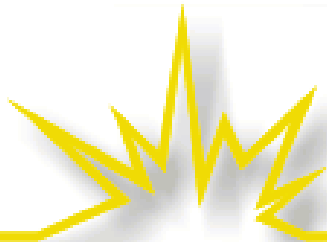
The Regulatory Assistance Project

GOALS OF REGULATION

➤ Supporting privitization/Attracting investment into the electric sector

➤ Protecting customers from monopoly abuse

➤ Implementing other national policies

Elements of Utility Regulation

➤ Control of Entry (licenses)

➤ Price Regulation

➤ Obligation to Serve

➤ Service Quality (safety)

Why regulate - U.S. Experience

➤ Four restructurings
  - State regulation created (1910-1920)
  - Federal regulation (1935)
  - Crises of 1970s
  - Competition and customer choice

State-by-state regulation

- Response to problems of regulation by cities, including growing companies and corruption
- Choice between regulated private power and public power
- Supported by many utility companies hoping for independence and for expertise
- Included franchises, rates, eminent domain

Federal regulation (1930-35)

➤ Response to inadequacies of state commissions, including size and corruption
  - Federal regulatory agency
  - Breakup of holding companies
➤ Federal public power to extend service and to challenge private companies
  - TVA and cooperatives

Reaction to 1970s - I

➤ Caused by
  - Oil Prices
  - Inflation
  - Nuclear construction
  - Environmental concern
  - Consumer concern
  - Industrial customer concern
  - Limited regulatory competence

Reaction to 1970s - II

➤ Results
  - Stronger commissions
  - Improved regulatory laws
    • Reviews of construction and purchases
    • Management audits
    • Energy efficiency
    • Integrated resource planning
  - New interest in competition
    • Public Utility Regulatory Policy Act
    • Breakup of telephone monopoly (1984)

U.S. Capacity by source

	1950	1970	1990
Capacity	68, 900	341,100	735,100
Source			
Coal	47.1%		55.9%
Nuclear	00.0%	46.1%	20.6%
Oil	10.2%		04.2%
Gas	13.5%	01.4%	09.4%
Hydro	29.2%		10.0%
		12.0%	
		24.3%	
		16.2%	

Restructuring today

➢ Driven by technology
  - Cheaper generating plants
  - Greater computer capability
➢ And by economics
  - Gas availability
  - Low oil prices
➢ And by developments elsewhere
  - Telephone and gas
  - Great Britain

Results of current restructuring

- ➤ Full generation competition (federal then state)
  - – New power plants chosen by market
- ➤ Open transmission access (federal)
- ➤ Substantial reduction in vertical integration (state and utility)
- ➤ Choice for most customers within three years (state)
- ➤ Lower costs
- ➤ Different products, more innovation
- ➤ Less regulation, more antimonopoly scrutiny (federal and state)

Goals of regulation revisited

➤ Supporting privitization/Attracting investment
  - Costs must be fully recovered
    - By rates
    - or by subsidy
  - Bills must be paid, preferably in cash
  - Franchise agreements must be clear but flexible
  - Freedom from political influence
  - Transparency
  - Right of appeal

Goals of regulation revisited

➢ Protection of customers
  - Avoid excess profits
  - Clear customer rights
    - Participation/legitimacy
    - Service standards
    - Connection and disconnection
  - Freedom from political and utility influence
  - Transparency
  - Right of appeal

Goals of regulation revisited

➤ Implementing national policies
- Service for all customers
- National security
- Environment
- Economic development
- Employment

➤ Consistent with independence?

➤ Laws, executive overrides, government planning, government participation

A Question

➤ Why should you be learning cost-of-service regulation just as many countries are moving to deregulate parts of their power sectors and to apply performance based regulation?