

MBA683 - Power Sector Reform and Regulation – Theory and Practice

'First Course Sheet' - 2017-18 I Sem.

1. Objectives:

Amidst concerns for the power shortages, and deteriorating operational and financial performance of state owned electric utilities, power sector reforms were introduced in India. The emergent regulatory structure guides/influences investment, pricing and competition in the sector. The main objective of the course is to understand the economic rationale for regulation, the regulatory and policy changes in the Indian power sector vis-a-vis tariff making, competition and promotion of renewable energy. Some of the key questions to be addressed are,

Understand importance of electricity Sector.

What are the current issues facing the Indian power sector?

What economic principles justify economic regulation?

What is the need for regulation and how this is achieved?

Review reform and regulation of electricity sector in India.

How can private investors participate in the sector?

How can public sector improve its performance?

2. Prerequisites:

Economic Analysis for Management/Micro-economics/Managerial Economics or equivalents recommended.

3. Course Contents:

- Electricity value chain and economic development
- Structure of Electricity Demand and Supply: Power Sector Scenario in India
- Theories of Regulation and Economics of Regulation
- Power Sector Reform and Regulation: International and Indian Experience
- Electricity Act 2003 and related policies.
- Regulatory Process: Functions of Electricity Regulatory Commissions and APTEL.
- Rate of Return Regulation and Performance Based Regulation
- Determining Aggregate Revenue Requirement and Tariffs for Regulated Entities
- Availability Based Tariff and Multi-year Tariff
- Principles of Retail Tariff Design - Single Part, Multi-part, TOD Tariffs etc.
- Unbundling, Privatization and Franchisee Development
- Power Purchase Agreement
- Competitive Bidding Guidelines & Ultra Mega Power Projects
- Competition in Power Sector: Open Access and Retail Competition
- Functioning of Power Exchanges and Market Monitoring
- Distribution Reforms and Performance incl. R-APDRP and RGGVY
- Renewable Portfolio Obligation, Feed-in-Tariff and Renewable Energy Certificates.
- Demand Side Management

4. Special Emphasis: (optional)
5. Lecture, Tutorial & Lab Schedule & Venue
Wed. & Fri. 10:30 am - 12:00 noon
6. Office Hours: or, recommended mode of contact beyond formal contact hours
Wed. & Fri. 4:30 - 5:30 pm
7. Evaluation Components & Policies:

15 % - Class Attendance, Participation and Case Discussions
25% - Mid-sem exam
30% - Project on mutually agreed topic (group size TBA)
30 % - Final Exam
Attendance: 75 % minimum
Participation: Participation in Case Discussions and analysis expected from all students
8. Course Policies: Attendance, Honesty Practices, Withdrawal - Those mentioned above, and rest as per DOAA Guidelines.
9. Books & References:
Economics of Regulation and Antitrust – Viscusi, Vernon & Harrington, MIT Press, 2000
Power System Economics: Designing Markets for Electricity, Steven Stoft, Wiley- IEEE Press, 2001
Other relevant books, journal articles, reports, laws, policy documents, regulations and tariff orders of regulatory commissions, case studies etc. Any additional material/links as mentioned in the class.