

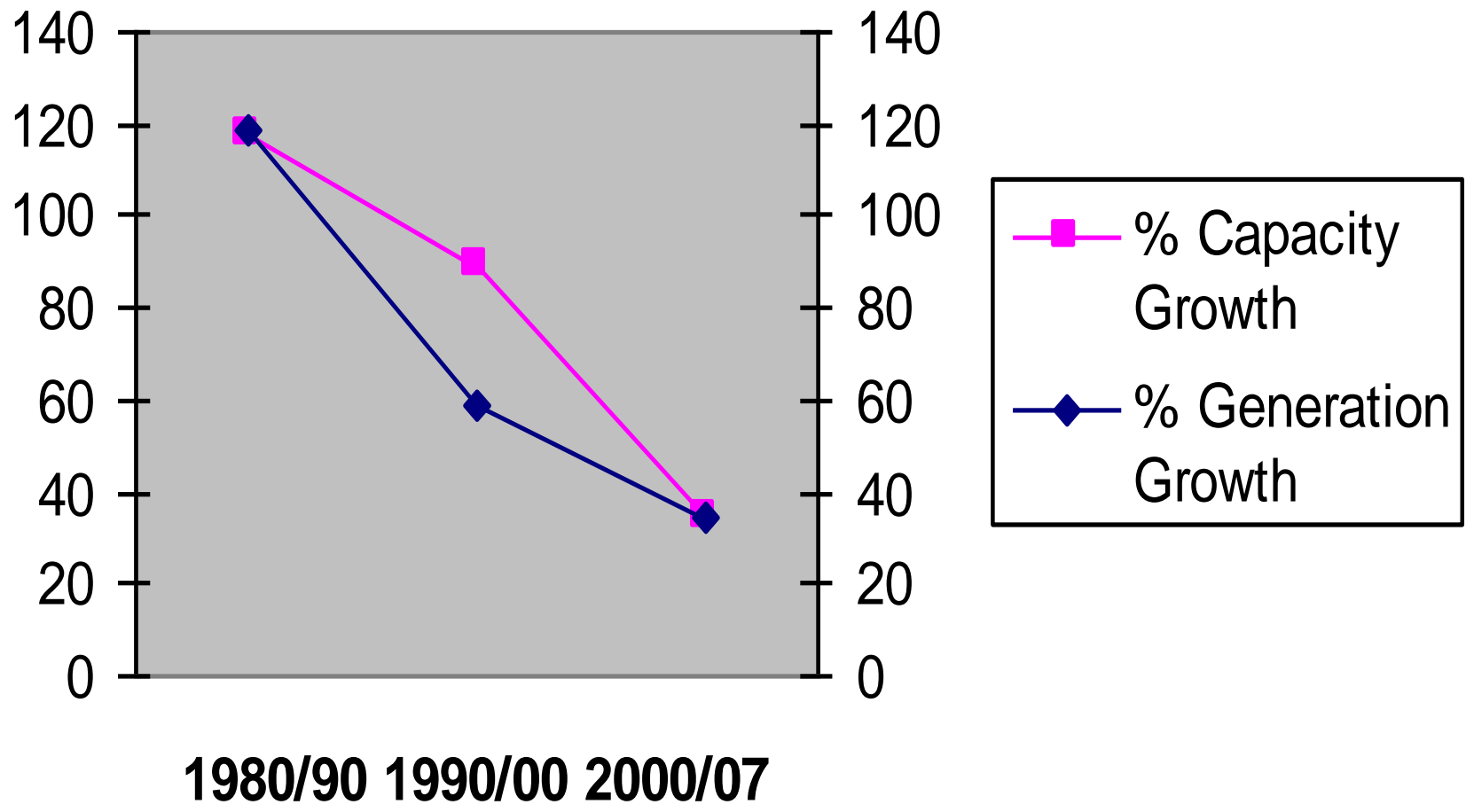
# **Transmission & Distribution of Electricity in India**

**Yoginder.K.Alagh**

# Issues

- **The Inherited Structure : Puzzle of High Growth and Inadequate Electricity: Major Technological Achievements: Problems**
- **Market Reform: Capacity Creation: Transmission and Distribution: Best Practices and Average Performance**
- **Unbundling T&D: Bidding on Reducing AT&C Losses : Bidding on Targets of Distribution Margins**
- **Reforms and Governance: Distribution Privatization: Tariff legislation: Successes and Misses: Then and Now**
- **Regulation**
- **Technology and Financing**
- **Equity**
- **Lessons**

# Electricity Capacity and Generation Growth



# **Transition to the New System**

- **The New Institutional System and Best Practices**
- **Unbundling Distribution: Delhi and Bidding on AT&C Loss reduction Targets: Others which did not work**
- **Towards Open Access and Problems**

# **Governance Reform**

**Now and Then Cases**

**Privatization of Transmission: Mangalore in  
1997, on Forgetting Past Successes: Now**

**Rural Tariffs; Now: 1998**

**Power Trading and Pricing**

**LRMC and Availability Tariffs**

**A Synergistic Political Economy of Governance  
Reform : Building on Past Successes: Learning  
from Past Failures**

# On Regulation

- **Who will Guard the Guards?**
- **Civil Servants and Technicians**
- **On Age Bars**
- **Don't ask the Controllers to regulate the Reform**

# **Technology, Finance, Equity**

- **Some Successes in Central Mode**
- **Energy Efficient India and Economy Level Reform**
- **More Possible Now**
- **Bulky Investments and Prudential Norms?**
- **Covering the Last Mile**

# Easy Lessons

- **Experiment with alternative administrative and bidding procedures in the unbundling process of transmission and distribution from centralized electricity systems. Bidding on AT&C losses**
- **Move away from cost plus pricing so loved by parastatals in transmission and distribution at the earliest. AT&C loss minimization strategy is a variant of a long term marginal cost pricing strategy .**
- **Merit Order Despatches hated by Controllers**
- **A transparent regulating system and the infrastructure of transmission and distribution needs to be set up at the earliest. The Central and State Electricity Regulatory commissions and the Appellate Tribunal for Electricity (ATE), SEBs disaggregated into Generation, Transmission and Distribution Companies, various policies like the National Electricity Policy, Tariff Policy, Rural Electrification Policy mandated by the Act, along with Rules and Regulations have to be in place. Trading licenses have to be issued, power trading has to commence. National Grid Code and State Grid Codes have to be notified. Only then unresolved problems can be taken up.**



# Tough Ones

- **Persist with reform ideas at the highest political levels. The successes of private transmission and availability tariffs in the initial stages and later problems underline this. These aspects need to be integrated in case studies of reform, which in turn have implications for negotiating reform packages.**
- **Technological improvement packages, say as in open access programs need to be accelerated anyway and the Indian experience shows that while the important issues lie in the reform and unbundling package, the technical packages have a usefulness of their own .**
- **Equity aspects need to be embedded in the program of reform, recognizing fully well the difficulties in a structured subsidization policy.**
- **Reform itself will make most electricity investments viable, sectoral and company level prudential rules may need careful review in view of the lumpy nature of power investments. Long Term Financing institutions, Infrastructure lending Banks and experienced regulation by central bankers may be needed to fund otherwise viable projects. Global Help Needed**