



Presentation on  
Key Issues faced by Regulators in  
developing countries - India

Mr. S. B. Kulkarni, Member,  
Maharashtra Electricity Regulatory Commission

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# Organisation of Electricity Sector in India



CERC

CGS, CTU & inter-State  
tariff

SERCs

Affordability issues  
concern SERCs

G, T, D &  
Retail Supply

- **Installed generation capacity - India – 150,300 MW; capacity available to Maharashtra – 20800 MW**
- **Peak shortage - Estimated peak shortage of 18.1% and estimated energy shortage of 8.8% % during FY 2009-10 in India; Maharashtra has peak shortage of ~ 23%**
- **Per capita consumption: India ~ 600 units; Maharashtra ~ 900 units**

# Issues faced by residential & small consumers

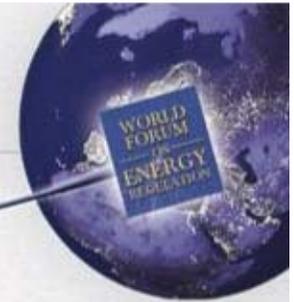
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1. Lack of basic distribution infrastructure
2. Quality of supply
3. Affordability of Tariff
4. Billing & Payment
5. Monopoly in electricity supply

# Basic Distribution Infrastructure

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- **Distribution network in rural areas is poor**
  - Capital expenditure requirement to strengthen distribution network
  - Recovery of capital expenditure costs has tariff implications
- **Difficulties in obtaining electricity supply**
  - Because of poor distribution network
  - Simplification of application procedure

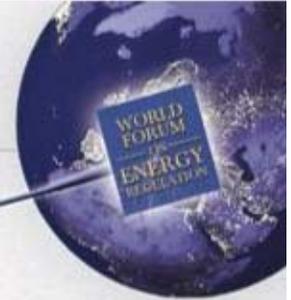
# Quality of Supply

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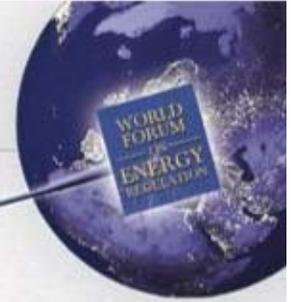
- Rural – urban divide in terms of quality of network as well as quality of supply
  - Assured hours of supply – load shedding is an issue, because of prevalent demand-supply gap in the State
  - Voltage – due to long LT lines, the voltage at consumer end is often not within standards
  - reliability of supply – weaker distribution network due to long LT lines leads to more interruptions

# Affordability of tariff... 1/2



- Historically, there is a wide disparity between the tariffs charged to different consumer categories
- National Tariff Policy stipulates that tariffs should be within +/- 20% of average cost of supply by 2011
  - Steep increase will be required for agricultural and residential consumers to meet above objective
  - Agricultural consumers do not have the capacity to pay even the existing tariffs
    - Most of them are paying flat rate tariffs
    - State Government is subsidizing even these rates

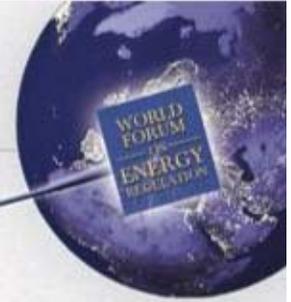
# Affordability of tariff...2/2



- Relationship between tariff and quality of supply needs to be examined
  - Agricultural consumers receive supply for only 8 to 10 hours daily
  - Due to long LT lines, supply voltage is also poor
  - Utility has no incentive to supply more to agricultural sector, since it is un-remunerative
  - Regulators have to play a key role here

# Billing & Payment – 1/2

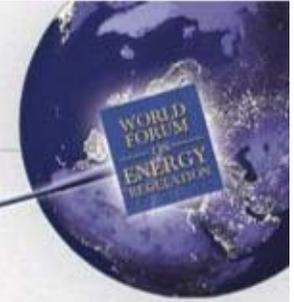
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- MERC has attempted to simplify the electricity bill by making bills more informative
- MERC has directed Utilities to provide multiple channels for ease of bill payment, viz.,
  - Drop boxes
  - Through internet
  - Electronic clearing mechanism through banks
  - Collection centres
  - Pre-paid meters

# Billing & Payment – 2/2

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- For settling billing disputes, a three-level Grievance redressal mechanism has been established
  - Internal Grievance Redressal Forum
  - Consumer Grievance Redressal Forum – one in each Circle – 15 in the State
  - Ombudsman

# Natural monopoly in electricity supply

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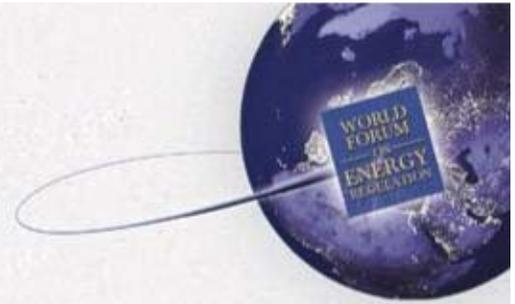
- Distribution licensees (unified distribution and supply licence) have a natural monopoly
- In Maharashtra, due to historical reasons, there are parallel licensees only in Mumbai area
  - Tata Power & Reliance – in suburban Mumbai
  - Tata Power & BEST – in Greater Mumbai
- Introduction of competition is necessary to reduce tariffs and improve service quality
  - MERC has determined wheeling charges for use of wires of other licensees
  - Practical issues – meter ownership, past arrears, etc.

# Way Forward

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- Strengthen Grievance Redressal to improve supply quality and service
- Introduce competition in electricity supply
  - to reduce tariffs
  - to improve quality of supply
- Steps to attract more investment in the power sector
  - Generation, Transmission & Distribution



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**Thank You!**

Mr. S B Kulkarni - World Forum on Energy Regulation IV - Athens, Greece - October 18-21, 2009