

Regulatory regime in Madhya Pradesh

Presentation by

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Outline of Presentation

1. Introduction
2. Historical evolution
3. Regulatory Process
4. Regulatory efforts
5. Outcome of regulatory regime
6. Way forward

INTRODUCTION

Madhya Pradesh-Fact File

Geographical Area	- 308 Sq. Km
Population	- 60348000 (Census 2001)
Lok Sabha Seats	-29 (06-07)
Assembly Seats	-230
Revenue Division	- 9
District	- 48
Tehsil	-272
Blocks	-313
Villages	-55393
Municipal Corpn	-14
Municipalities	-87

Madhya Pradesh-Fact File

Main Crops - Rice(Peddy), Wheat, Javar, Gram,
Soyabean, Sugarcane, cotton

Per capita gross cropped area- 0.3 Hect. (FY06)

Per capita food grain production-216.35 Kg (FY06)

Literacy Percentage (Census,2001)- 63.7

Per capita income (current prices)- Rs 15647 (FY06)

Total Roads length per 100 sq. km. Of area- 24 km (07)

Birth rate- 29.4 per thousand

Death rate- 9 per thousand

Infant mortality rate- 76 per thousand live birth

MP Power sector-snap shot

Installed capacity

Thermal-2647.5 MW (PLF-70.54 %)

Hydel-903 MW

Joint venture (Narmada)

NHDC- 1525 MW

Sardar Sarovar-826.5 MW

EHV lines- 20949.1 Ckt. Km

HT lines-199868 Ckt. Km

EHV transformers-24854.5 MVA

HV transformers-11399 MVA

HT/LT Ratio-0.6

Dist. Transformers-17056 MVA

No. of consumers-6656000

Village Electrification-97.5 %

Per capita consumption-320

During Rabi season:

Peak demand (unrestricted): 7200 MW

Availability: 6200 MW

Load shedding: 1000 MW

Historical evolution

Historical evolution

- Electricity came to Madhya Pradesh in 1905 at Gwalior
- Licensees were supplying electricity in urban areas of Madhya Pradesh during pre-independence period and till formation of MPEB
- MPEB worked in the State since 1.11.1956 Under provisions of Electricity (Supply) Act 1948,
- MPEB played a major role in spread of electricity network in the State
- MPEB ceased to exist in November 2000, when State was bifurcated into Madhya Pradesh and Chhatisgarh
- MPSEB started its functioning thereafter in the successor State of MP

Historical evolution -Some statistics for Undivided MP (MP+Chhatisgarh) 1956-2000

	1956	2000
Installed capacity, MW	81.5	4260.7
No. of Villages Electrified	136	68346
No. of Energized pumps	265	1298108

MPEB performance

- MPEB was one of the best performing SEBs
- Around Nineties its performance started deteriorating and financial crisis loomed large on MPEB
- Due to rapid rural electrification the consumer mix in the State changed, but the tariff determination was done as an extension of past principles and practices
- Tariff setting virtually shifted to State Government from MPEB
- State Government acting as a welfare State could not follow Commercial principles in tariff setting

Crisis unplugged

- MPEB pulled on with commercial losses and cash crunch showing Government subsidy as recoverable to bridge the revenue gap in books of accounts
- Cash crunch adversely affected capital works and even Repair & Maintenance work
- Due to power cuts and poor quality of supply and rising burden of cross subsidy industries shifted to captive plants, which adversely affected the consumer mix and financials
- Bifurcation of State came as a bolt from the blue, which almost derailed the power sector in MP

Adverse impact of division of MPEB

% Division	MP	Chhattisgarh
Installed capacity	68	32
Consumption	78	22
Revenue	64	36
Irrigation pumps	94	6

Electricity Reforms

- State Government constituted MPERC on 18.8.98 under ERC Act 1998
- Chairman and Members of MPERC appointed in 1999
- MPERC started functioning in 1999 and delivered its first decision setting aside tariff revision enforced by MPEB w.e.f. 1.3.1999
- MP Vidyt Sudhar Adhiniyam 2000 enacted on 3rd July 2001
- MP Urja Adhiniyam 2001 enacted to curb unauthorised use of electricity

Electricity Reforms contd.

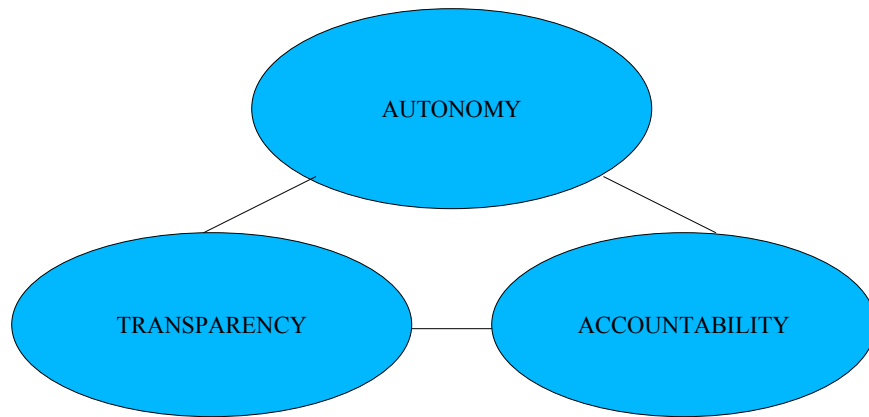
- MPERC started defining rules of the game by putting regulations in place
- First Tariff order was delivered on 25.09.2001
- Unbundling of MPSEB was made effective on 1st July 2002
- Initially Companies started as Operation & Management agents for MPSEB
- Autonomy given to Companies from 1st June 2005 subject to central cash flow mechanism
- Provisional balance sheets assigned to Companies by the State Government

MP power sector structure

- MPSEB as residual Board
- MP Power Generating Company
- MP Power Transmission Company
- MP Power Trading Company- procures power on behalf of all the 3 Discoms
- **3 Discoms namely:**
 - MP Madhya Kshetra Vidyut Vitaran Company
 - MP Pashchim Kshetra Vidyut Vitaran Company
 - MP Poorv Kshetra Vidyut Vitaran Company

Regulatory Process

Regulatory Process



Autonomy

- Legal provisions for autonomy exist in Electricity Act 2003
- SERC is a Quasi Judicial body- has powers to summon and enquire
- Provision of separate SERC fund through which expenses are met
- Apart from legal provisions autonomy is also about mindset- Regulators need to function with such mindset
- MPERC has always worked with an autonomous mindset- it has even defined the manner of payment of Government subsidy through regulation

Transparency

- Public hearing conducted for tariff determination
- All draft regulations are placed on web-site inviting suggestions/ objections- public notices in News papers also issued
- Before proceeding with new and important issues Discussion papers are placed on web-site inviting suggestions/ objections- public notices in News papers also issued
- State Advisory committee includes all stake-holders and interest groups e.g. industries, NGOs
- MPERC organizes frequent interactions with electricity companies & stake-holders and adopts consultative approach

Accountability

- Functioning with sense of responsibility
- Fixing and monitoring accountability in the power sector
- MPERC through its regulations has laid down framework for accountability
- MPERC conducts regular reviews to monitor performance against expectation
- MPERC has framed separate regulation for compliance monitoring
 - One Director (Regulatory Enforcement)
 - Each Discom has one Reporter of compliance
 - Suo Motu Petitions to enforce accountability

Regulation Roadmap

- Create regulatory framework
- Adopt consultative approach
- Balance interest of investor and consumers
 - Investment shall come, if investor's interests are safe-guarded
 - returns on investment shall follow, if consumer is satisfied
- Ensure visible improvements in consumer services
- Ensure regulatory effectiveness and compliance
- Least governance is the best governance
- Controls adopted should be like ATC (Air traffic controller), who guides and monitors flights closely yet does not take over control of aircraft

Regulatory Efforts

Rules of the game- Extensive framework of regulations created

1. MPERC (Fees and Charges) Regulations
- 2.MPERC (Methods of Recruitment and Condition of service of Officers and employees Regulation 2001)
3. Electricity Supply Code 2004
4. MIS Regulation 2004
5. Establishment of Forum and Electricity Ombudsman 2004
6. Procedure for application for License 2004

List of regulations contd.

7. Other Business of Transmission Licensee
8. Appointment of Consultants
9. State Advisory Committee 2004
10. Distribution Performance Standards'04
11. Transmission Performance Standards
12. Conduct of Business Regulation 2004
13. Condition of Transmission License 2004
14. Condition of Distribution License'04
15. Details to be furnished by Generating Companies and Licensees for Determination of Tariff 2004

List of regulations contd.

16. MP Electricity Grid Code 2004
17. Procedure for Filing Appeal before
Appellate Authority
18. Levy and collection of fee and charges by
SLDC,2004
19. Security Deposit Regulation, 2004
20. Eligible Criteria and Grant of trading
license, the duties & the terms and
condition of trading license'04
21. Power Purchase & Procurement
Regulations, 2004

List of regulations contd.

22. MPERC (Manner of service and publication of
notice) Regulation'04
23. Fees, Fines & charges Regulation
24. MPERC (Methods and Principles of Fixation of Charges
and Schedule of Miscellaneous Charges Recoverable by
Distribution License for supply of electricity) regulation '2005
25. MPERC (guidelines for Reporting of regulatory
Compliance)Regulation'05
26. MPERC (Terms & Conditions for Intra State Open Access
in MP) Regulations'2005

List of regulations contd.

27. Procedure for Calculating Expected Revenue from Tariff & Charges, Regulation ' 2005
28. MPERC (Terms and Conditions for Determination of Genco. Tariff) Regulations, 2005
29. MPERC (Terms and Conditions for Determination of Tariff for distribution and retail supply of electricity) Regulations, 2005
30. MPERC (Terms & Conditions for Determination of Tariff for distribution and retail supply of electricity and methods and principles for fixation of charges) Regulations, 2006
31. MPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2005

List of regulations contd.

32. Madhya Pradesh Electricity Distribution Code 2005
33. MPERC (Power purchase and other matters with respect to conventional fuel based captive power plants) Regulation'2006
34. MPERC (Recovery of Expenses & other charges for providing electric line or plant used for the purpose of giving supply) Regulations, 2006
35. MPERC (Manner of payment of subsidy by the State Government) REGULATION, 2007
36. Extension of time period to supply electricity to unmetered consumers in operational areas of the Distribution licensees (including deemed licensee) in MP

Consultative approach

- Public hearing for tariff determination, held on 5th to 14th February 2008 for FY08-09 tariff
- State Advisory Committee includes representatives from industries, NGOs, Educational institutes, Employee union
- Quarterly Meetings of State Advisory Committee
- Supply Code review panel constituted comprising of the representatives of consumers and Discoms. Amendments to Supply Code made on the basis of its recommendationsPre-publication of all draft regulations
- Discussion papers on all important issues, some recent papers include:
 - Billing of agricultural consumers based on DTR metering
 - Amendment in power purchase regulation
 - Implementation of ABT
 - Tariff setting and approach to renewables
 - Small Hydro projects
 - Tariff Philosophy

Consultative approach contd.

- Tour of Commission to cities/towns and villages in and around :
 - Indore
 - Ujjain
 - Bhopal
 - Gwalior
 - Jabalpur
- Workshop/ seminars/ meetings for stake-holders, some recent programme include:
 - R&M of power stations
 - Energy Efficiency & Demand Side Management
 - Metering
 - Consumer awareness-interaction with NGOs through workshop
 - Balancing & Settlement Code under Intra State ABT

Tariff Determination Process

- MYT regulation-control period 3 years
- Performance benchmarks part of regulation
- MYT for Genco and Transco
- Retail tariff is still on year to year basis
- Tariff determination through public hearings
- All the objections and suggestions received in writing or during hearing are duly considered by MPERC
- Although tariff is cost plus, but interests of utility as well as consumers are safe guarded
- No unreasonable costs are passed on to consumers
- Reasonable additional expenses beyond the control of Licensee are allowed at the time of true up

Electricity Act 2003- consumers related provisions

- **Section 42 (5)**- Obligation on every distribution licensee to establish forum for redressal of grievances of the consumers
- **Section 42 (6)**- Any consumer aggrieved by non-redressal of his grievances may approach the Electricity Ombudsman appointed by the State Commission
- **Section 43**- New service connections to be given within one month, where no extension involved.
- In case extension involved, Commission to specify period
- **Section 50**- Commission to launch Supply Code specifying terms and conditions of Electricity Supply
- **Section 57**- The Commission to specify standard of performance and compensation, if licensee fails to meet the standards
- **Section 86**- The Commission has been entrusted with specific function specifying and enforcing standards with respect to quality, continuity and reliability of supply/services by the licensee.

Provisions of National Electricity Policy (NEP)

- NEP provides for
 - supply of electricity to all areas
 - protection of interest of consumers and other stakeholders
 - supply of reliable and quality power of specific standards in an efficient manner and at reasonable rates
 - development of power market to bring in the element of competition and efficiency
 - providing alternatives for licensee/consumers to reduce tariff in the long run

Provisions of Tariff Policy (TP)

- TP aims to ensure availability of electricity to consumers at reasonable and competitive rates.
- TP lays down framework for determination of tariff in such a manner which will bring in improved efficiency in the power sector reaching out benefits to the consumers.

Commission's initiatives towards consumer protection and improvement in services

- Consumer complaint redressal
 - Establishment of Consumer Redressal Forums
 - Intervention of Electricity Ombudsman
 - Online review of status of complaints lodged with the Forums from 1.1.08
- Establishment of Central Call Centers
- Online registration of complaints at Call Centers

- Spot Billing at select cities
- Facility of 24 hours bill payment at select cities

- Involvement of NGO's on consumer issues
 - 120 NGOs registered with MPERC
 - Workshops for NGOs to create awareness amongst consumers

Visible consumer benefits

- Loss reduction trajectory, %

Discom	FY 07	FY 08	FY 09	FY 10	FY 11
West	30.0	28.5	27.0	25.5	24.0
East	34.5	32.5	29.5	26.5	23.5
Central	43.0	40.0	37.0	34.0	31.0

- Even if Discoms fail to achieve desired loss level, the expenses in ARR shall be allowed based on loss trajectory

Visible consumer benefits

- Performance standards
 - Fuse off calls to be attended within 4 hrs and 24 hrs in urban and rural area respectively
 - DTR replacement within 12, 24 and 72 hrs at Revenue Division, Towns other than division and rural area respectively
 - Defective meters to be replaced within 15 & 30 days in urban & rural area respectively
 - New connections
 - within 30 days in cases no extension work involved
 - Within 103 days in case of extension work involved but connection is other than agricultural
 - Within 133 days for agricultural connections subject to availability of approach road respectively
- Compensation to be given, if standard not met

Visible consumer benefits

- Own your transformer scheme available to farmers at a lower rate
 - few farmers together can avail a connection through owned transformer and pay the bill on the basis of DTR meter and share the bill amongst themselves
- Tariff categories brought down to 12 from 21 & complexities reduced
- Energy efficiency incentives upto 30 paise per unit given to farmers for installation of ISI motor, friction less PVC pipe, foot valve and shunt capacitors- MPERC considering to broaden incentive and cover municipal connections also

Visible consumer benefits

- Open access allowed to 19 captive and 1 non-captive consumers

Sr No	Phases	Customer with contracted power under open access	Date from which open access granted
1	I	Users requiring 10 MW or above at voltage 132kV or above situated anywhere in State	16-Jun-05
2	II	Users requiring 5MW or above at 33kV or above and situated in industrial growth centres notified by the State Government or having independent 33kV feeders from EHV substation.	16-Jun-05
3	III	Users requiring 2MW and above at 33kV and above and situated in industrial growth centres notified by the State Government.	1-Oct-05
4	IV	Users requiring 5 MW and above and situated anywhere in the State	1-Apr-06
5	V	Users requiring 1MW and above and situated in industrial growth centres notified by the State Government.	1-Oct-06
6	VI	Users requiring 2 MW and above and situated anywhere in the State	1-Apr-07
7	VII	Users requiring 1 MW and above and situated anywhere in the State	1-Oct-07

Investor friendly approach

- Regulatory certainty and continuity-MYT regulations already issued specifying performance parameters
- Tariff orders issued on the basis of MYT regulation for:
 - Genco (FY 2006-07 to FY 2008-09)
 - Transco (FY 2006-07 to FY 2008-09)
- Timely tariffs- Tariff orders issued in 2001, 2002, 2004, 2005, 2006 and 2007
- True ups allowing recovery of gaps, if any
- For 05-06, following gaps were allowed to be recovered
 - Genco- Rs 94 Cr., Transco- Rs 94 cr., West discom- Rs. 118 Cr.
- For 06-07, recovery of gap of Rs. 74 Cr allowed to Transco
- Tariff for renewable energy sources- wind, bio-mass, draft on bagasse, Small hydro and Solar tariff coming shortly

Investor friendly approach

- Rationalisation of tariff
 - Tariffs were highly distorted skewed earlier. MPERC rationalized the tariff structure
- Cross subsidy reduction map- LT consumers

Category	Average realization as % of average cost of supply of that financial year			
	FY 08	FY 09	FY 11	FY 12
Low Tension				
Domestic	93	93	94	95
Non-Domestic	152	140	130	120
Water Works	86	90	92	95
Street Light	100	100	100	100
Industrial	121	121	121	120
Agriculture (Metered)	67	67	73	80
Agriculture (Un-metered)	61	67	73	80

Investor friendly approach

- Cross subsidy reduction map- HT consumers

Category	Average realization as % of average cost of supply of that financial year			
	FY 08	FY 09	FY 11	FY 12
Extra High/ High Tension				
Railway Traction	128	126	123	120
Coal Mines	149	140	130	120
Water Works	88	90	92	95
Industrial	125	124	122	120
Non-Industrial	136	131	126	120
Seasonal	179	160	140	120
Bulk residential	97	97	97	97
Bulk supply to exemptees	80	85	90	95

Market development approach

- Open access and intra state ABT
- ToD metering
- DTR metering, Own Your Transformer scheme
- Price signals for energy efficiency, load factor improvements
- Support to Discoms to go for franchisee
- Support to Genco to Renovate and Modernize its old plants
- Cost plus tariff and performance based incentives

Regulatory effectiveness

- Compliance mechanism- Regulation
- Vigil on licensee activities- Suo Motu Petitions

Year	Nos. of SMP
2003	22
2004	35
2005	47
2006	35
2007	3
Total	142

- Direct interaction with consumer
 - Consumer satisfaction survey taken up by MPERC
 - Under consumers awareness programme
 - Leaflets containing standards of performance specified for rendering various services by the Discoms were printed by MPERC and distributed through Licensees alongwith energy bills to the consumers of Indore, Bhopal and Jabalpur cities
 - MPERC also verified distribution of leaflets through its officers

Outcome of Regulatory Process







Regulatory regime 2000-2007

	2000	2007	% rise
Installed capacity- Thermal, MW	2147.5	2647.5	23.3
Installed capacity- Hydel, MW	753	903	20.0
No. of Consumers in thousand	6286	6656	5.9
No. of HT Consumers	1600	2683	67.6
Total Consumption, MU	18316	19309	5.4
HT Consumption, MU	5211	7148	37.2

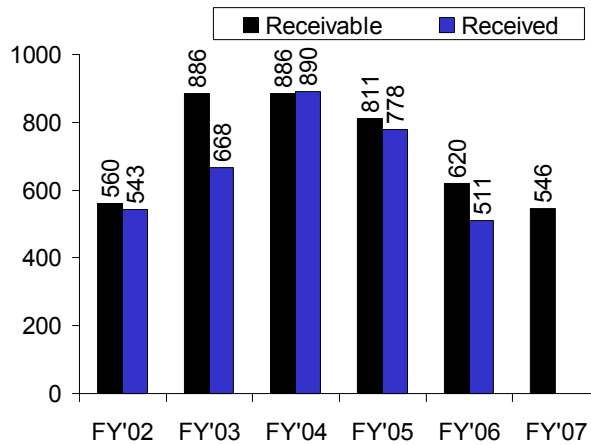
Regulatory regime 2000-2007

	2000	2007	% rise
EHT lines, Ckt Km	17069	20949	22.7
EHT Transformers, MVA	16133	24854.5	54.0
HT Lines, Ckt. Km	180235	199868	10.9
HT Transformers, MVA	8004	11399	42.4
Distribution Transformers, MVA	12712	17056	34.2
Village Electrification, %	97.04	97.5	0.46
Employees per thousand sq. km	243	177	- 27.2

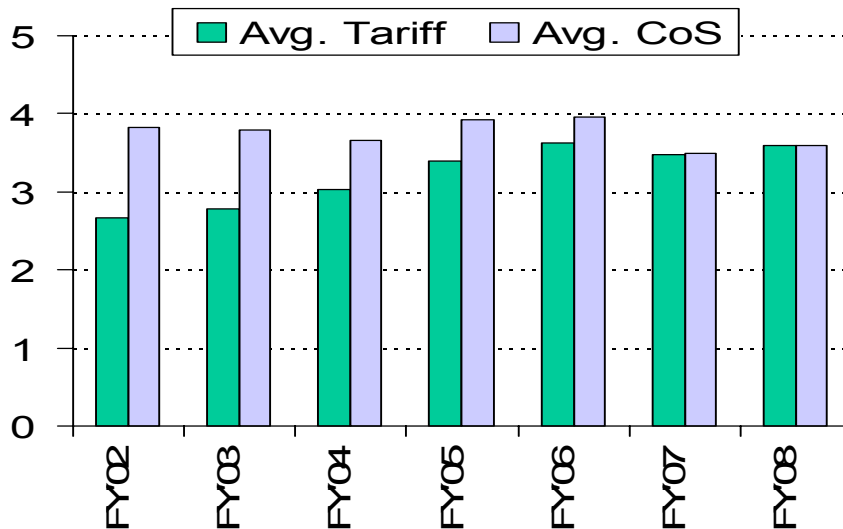
Regulatory regime 2000-2007

	2000	2007
Performance Standards	X	
Compensation on not meeting standards	X	
Electricity Ombudsman	X	
Call centres	X	
Any time payment	X	
Spot billing	X	

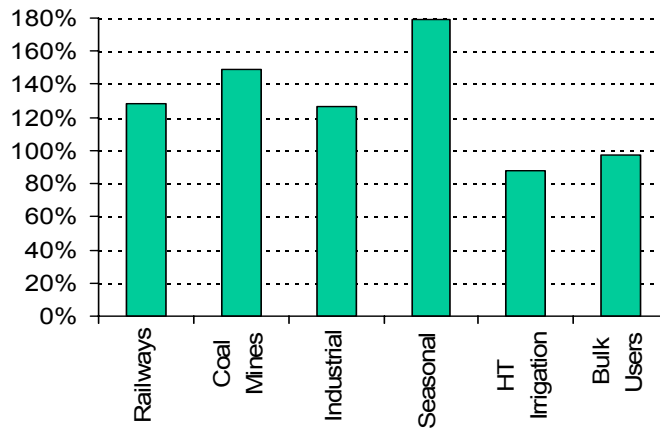
Regulatory regime 2002-2007 Government Subsidies, Rs. Cr.



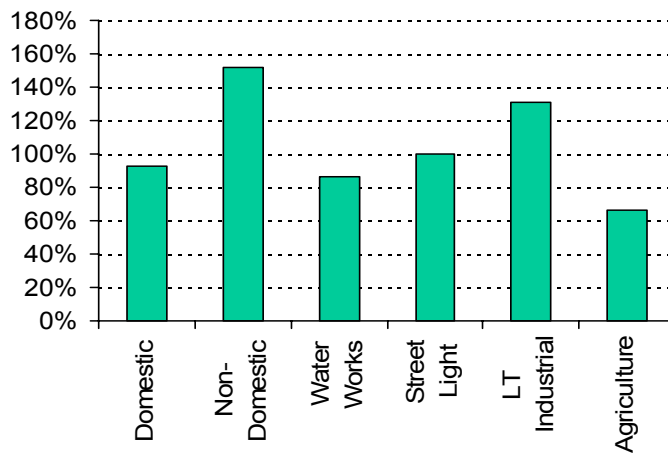
Regulatory regime 2002-2007 Average Tariff Vs Cost of Supply in Rs.



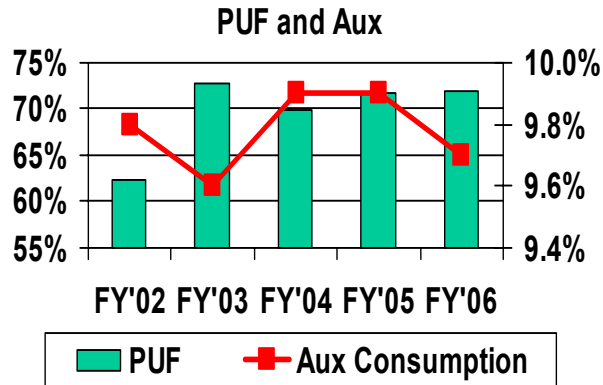
Regulatory regime Cost coverage (HT), % in 2007-08



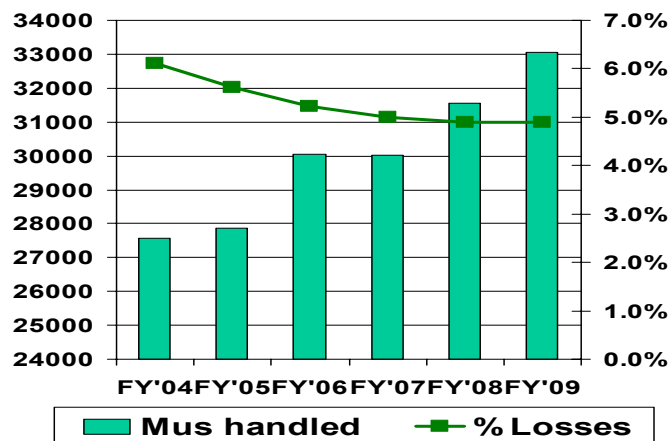
Regulatory regime Cost coverage (LT), % in 2007-08



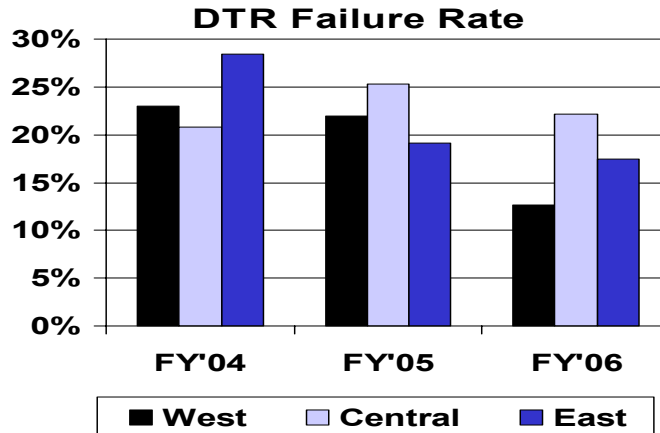
Regulatory regime MP Genco Performance



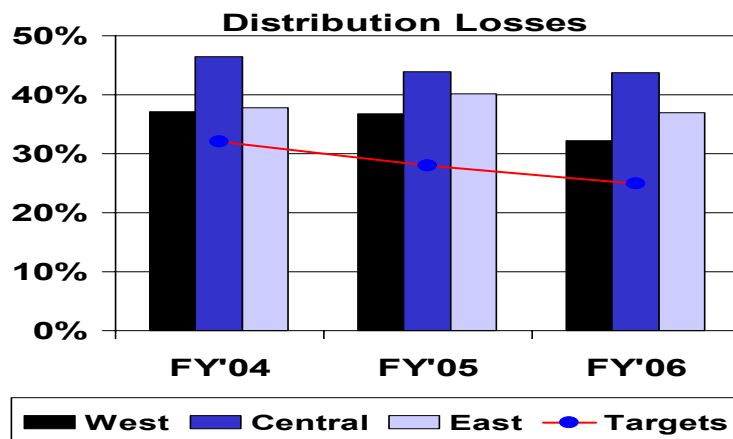
Regulatory regime MP Transco Performance



Regulatory regime Discom Performance



Regulatory regime Discom Performance



Way forward

- SERCs have to work towards
 - Meeting the challenge of providing power to all by 2012
 - Enforcing customer orientation in utilities
 - Supporting investments and all actions that bring in efficiency and delight consumers
 - Achieving Energy efficiency
 - In-discriminatory Open access
 - Facilitating Power exchanges
 - Developing market for Merchant power plants
 - Facilitating Renewables and CDM (Green & Clean Technologies)
 - Creating Auxiliary services market- Start up power, reactive power etc.

THANKS

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