

Financing the City: Private–Public Sector Partnership Power Distribution in Indian Cities

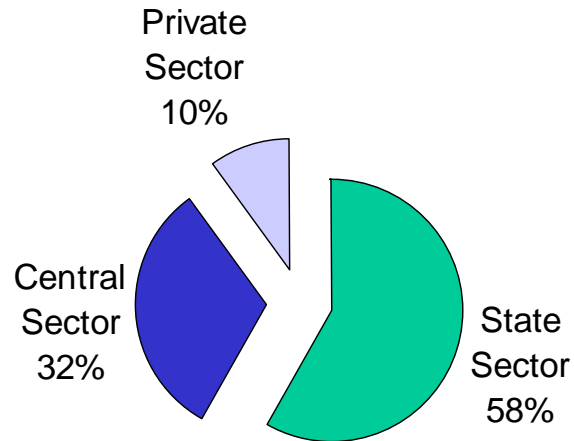
May 3, 2005

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- Overview of the Indian Power Sector
- About Tata Power
- Case Study: Distribution in Delhi

Overview of the Indian Power Sector

Installed Generation Capacity



Source: Central Electricity Authority of India

As on 31st March 2004:

- Total installed capacity in India: 112,058 MW
- In addition, captive power capacity: 20,000 MW
- Thermal-Hydel mix: 73%-27%

During the year ended 31st March 2004:

- Energy demand: 559 billion kWh
- Energy shortage: 5.98%
- Peak demand: 84,574 MW
- Plant Load Factor of thermal plants: 72.70%

PLF is low compared to international counterparts as:

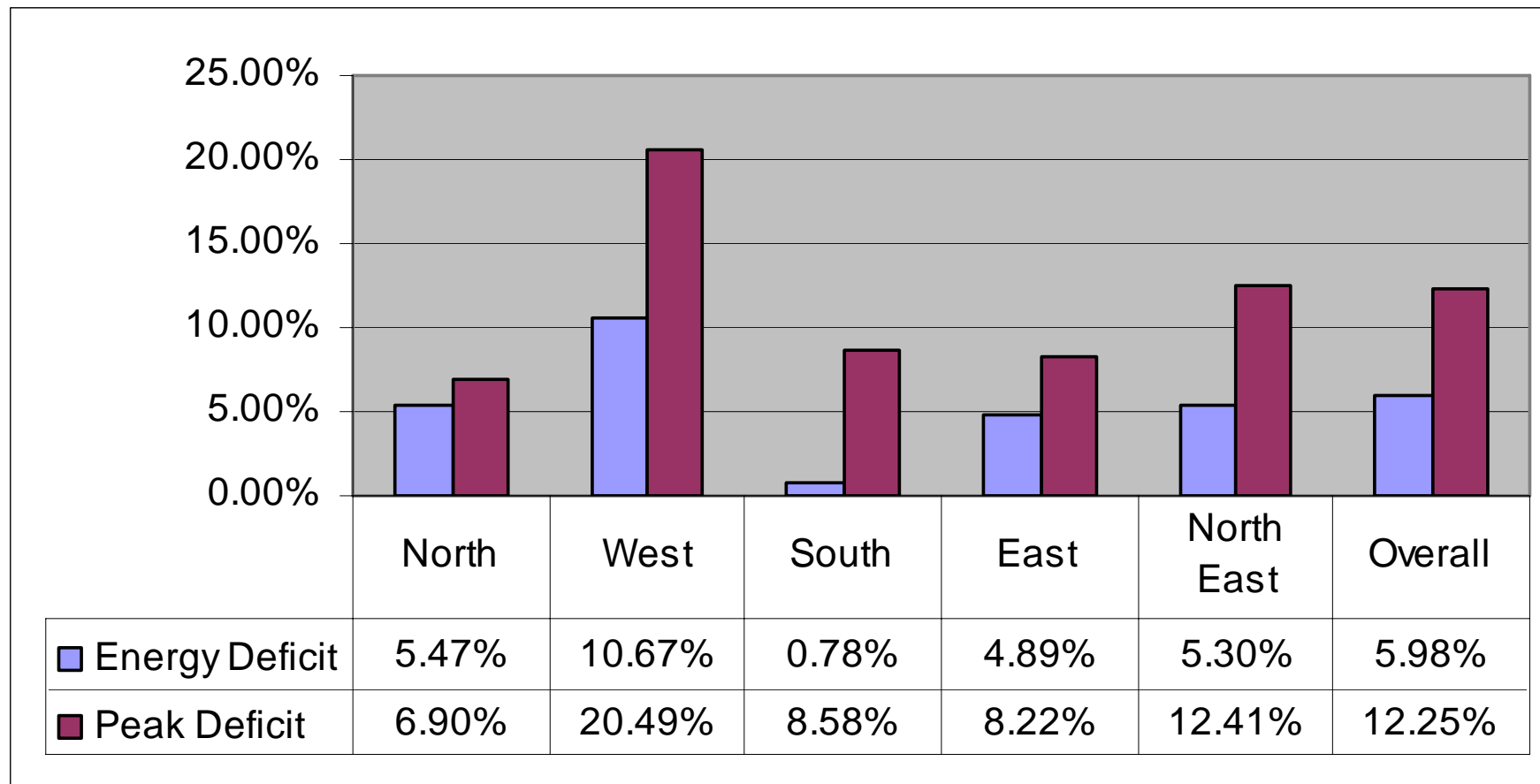
1. Plants are old
2. Transmission infrastructure is unsatisfactory
3. Fuel supply is not assured

Scope of network:

- Length of Transmission and Distribution lines in the country: 6.55 million circuit km
- % of tribal villages in the country that are electrified: 75.72%
- Transmission and Distribution losses: 27%

High T&D losses are attributed to:

1. Inadequate metering
2. Theft
3. Transmission and distribution of power at a low voltage



- Share of the Private Sector to be increased from 10% to 16.5%
- Generating Capacity to be increased to 212,000 MW
- Hydel contribution to mix to be increased to 30%
- Inter-regional transfer capability to be increased from 9,850 MW to 30,000 MW
- T & D losses to be reduced to 13%
- 100% rural electrification
- Industrial tariff to be brought down by half to support global competitiveness

USD Billion

Resource Requirement	Central Sector	State Sector	Private Sector	Total
Generation	73	27	25	125
Transmission	11	13	5	29
Distribution	0	22	0	22
Rural Electrification	0	23	0	23
R&M	0	6	0	6
Total	84	91	30	205

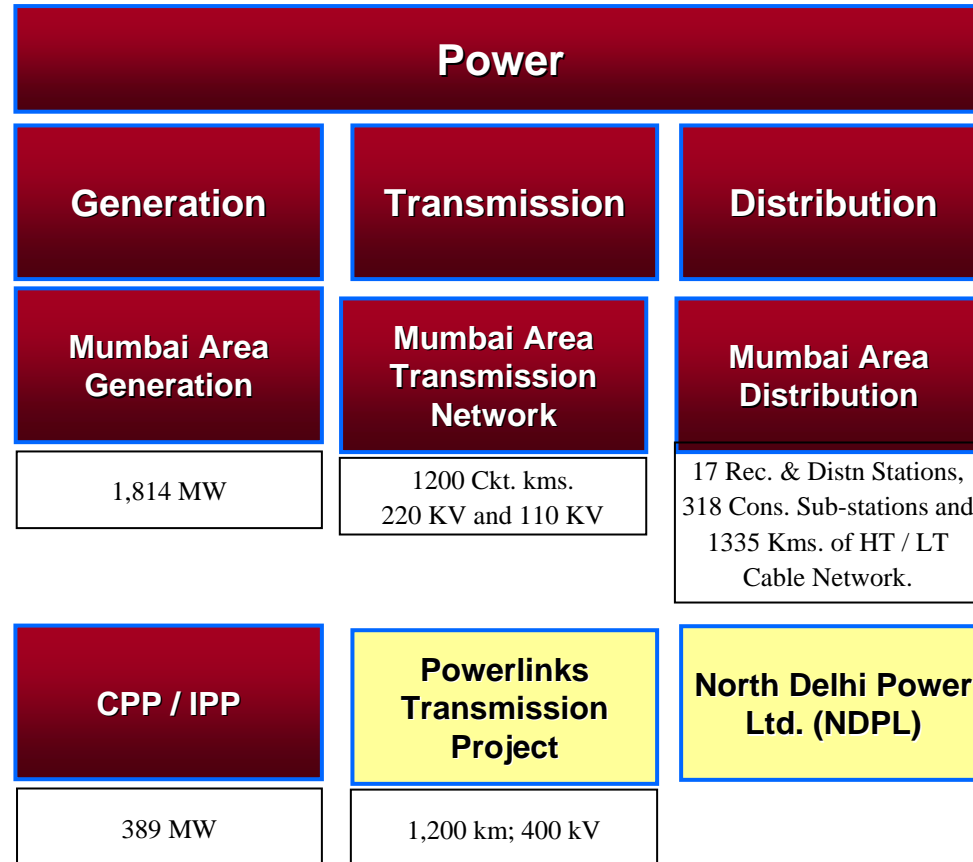
Note:

To the extent that the distribution systems are privatized, the fund requirements shown under the state sector will shift to the column marked private sector.

Source: Ministry of Power

About Tata Power

- Largest Private Sector Utility in the Country (2,203 MW capacity)
- Pioneers in the power sector in India with many firsts to its credit
- In the service of the power sector and the country for over 90 years
 - Providing reliable and economic power supply to the city of Mumbai
 - Captive and independent power projects in other States
- Presence in all aspects of Power – Thermal, Hydro, Solar, Wind, Transmission & Distribution
- Multi Fuel Capability – coal, oil & gas



USD Million

	Year Ending March 2004
Gross Income	963
Operating Profit	293
PBDIT	329
PAT	116

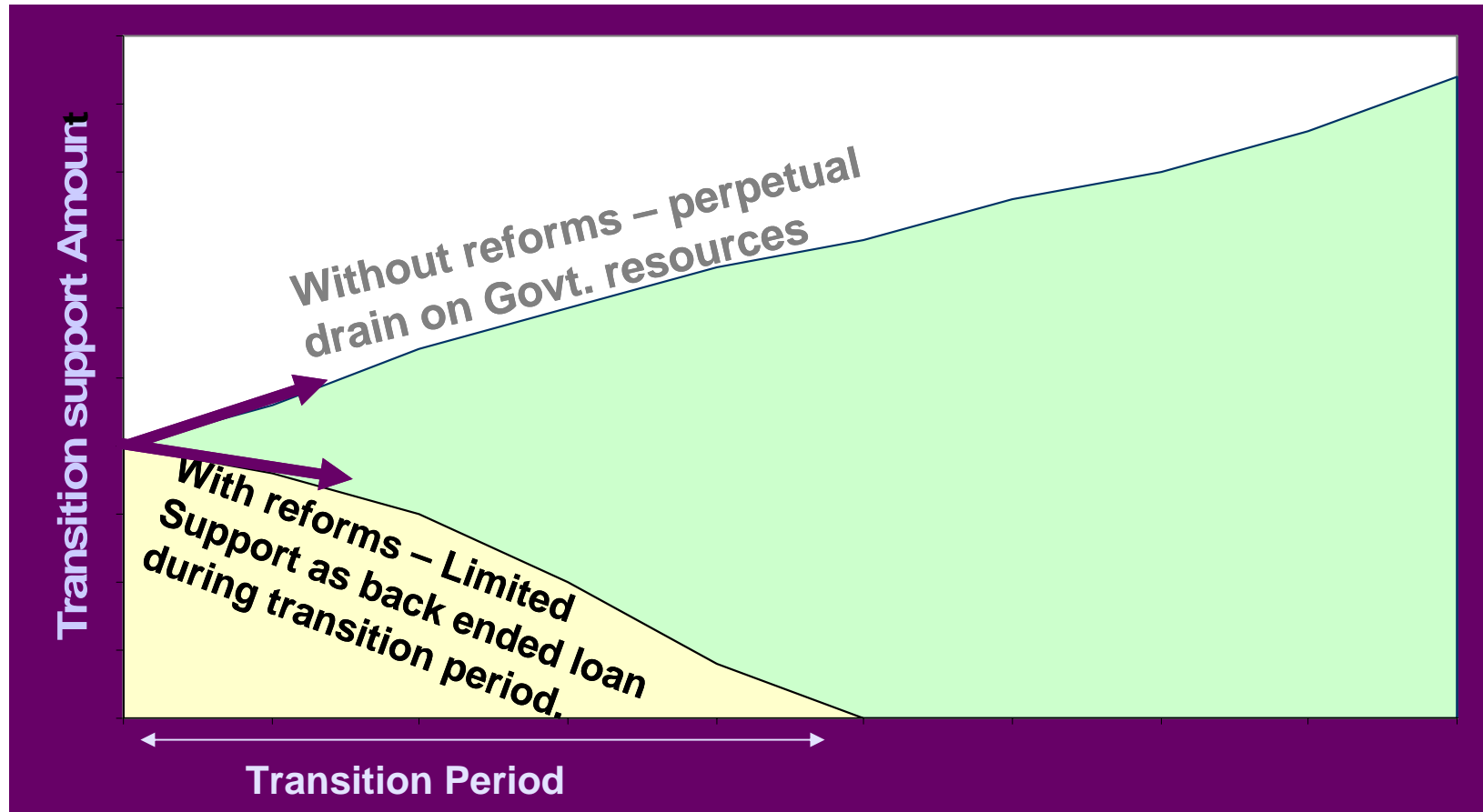
- In the year 2003-04, Maharashtra had:
 - Energy Deficit = 10.2%
 - Peak Deficit = 18.2%
- Its capital, Mumbai, enjoys uninterrupted power supply 24x7 by Tata Power
- “Power interruptions in Mumbai make headlines” – *Business Today & A T Kearney*, at an award function in March 2005 to honor Tata Power as one of the Best Managed Companies in India
- T&D losses in Mumbai at 2.4% are the lowest in India

Case Study: Distribution in Delhi

- Gol initiated reform in 1991 in the power sector and invited private and foreign investment in the sector
- With State Electricity Boards in poor financial position, investments did not take off as desired
- Subsequently, Distribution side of the reform initiated:
 - Orissa Privatization – Gave country the learning curve
 - Unbundling and Corporatisation of SEBs – A few success stories
 - Delhi Privatization – Showing the way for future privatization initiatives in India

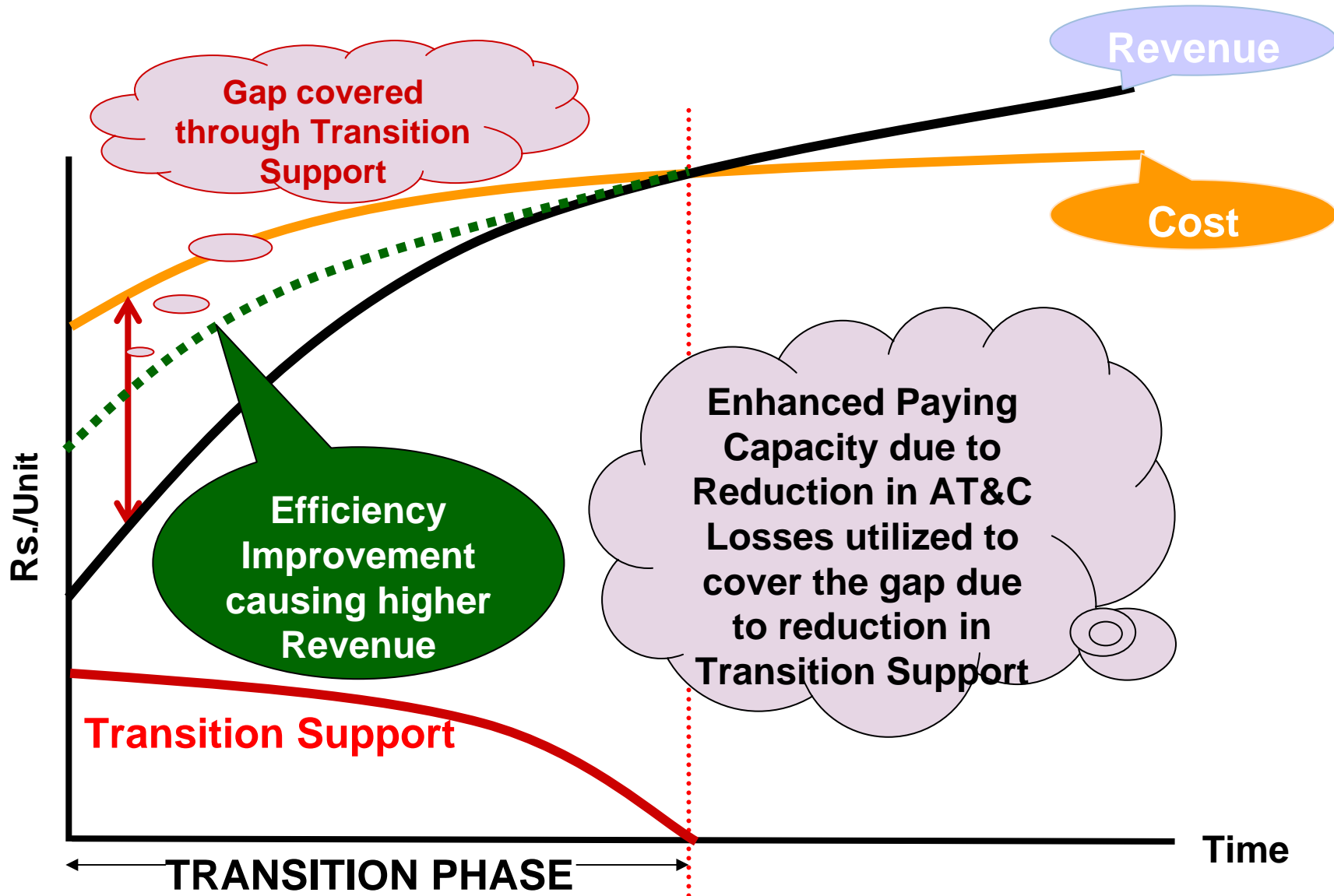
1905	M/s. John Fleming Company given the license for power supply in Delhi
1958	Delhi Electric Supply Undertaking (DESU) takes over
1997	Delhi Vidyut Board (DVB) constituted under Electricity Supply Act, 1948
1999	A high level committee produced a white paper on “Privatization and Restructuring”, which was approved by Government of Delhi (GNCTD)
2001	After acceptance of the bidding process by the Union Cabinet, employee unions, consumers of Delhi, media and potential investors, GNCTD configured the bidding process. Out of 11 bidders who participated, 6 investors were short-listed after the qualifying stage - Tata Power, BSES, Reliance, CESCO, AES, CLP
2002	April - Only Tata Power & BSES submitted the bids July – Privatization was effected

Need for Government Support During Transition Phase for Sustainable Reforms

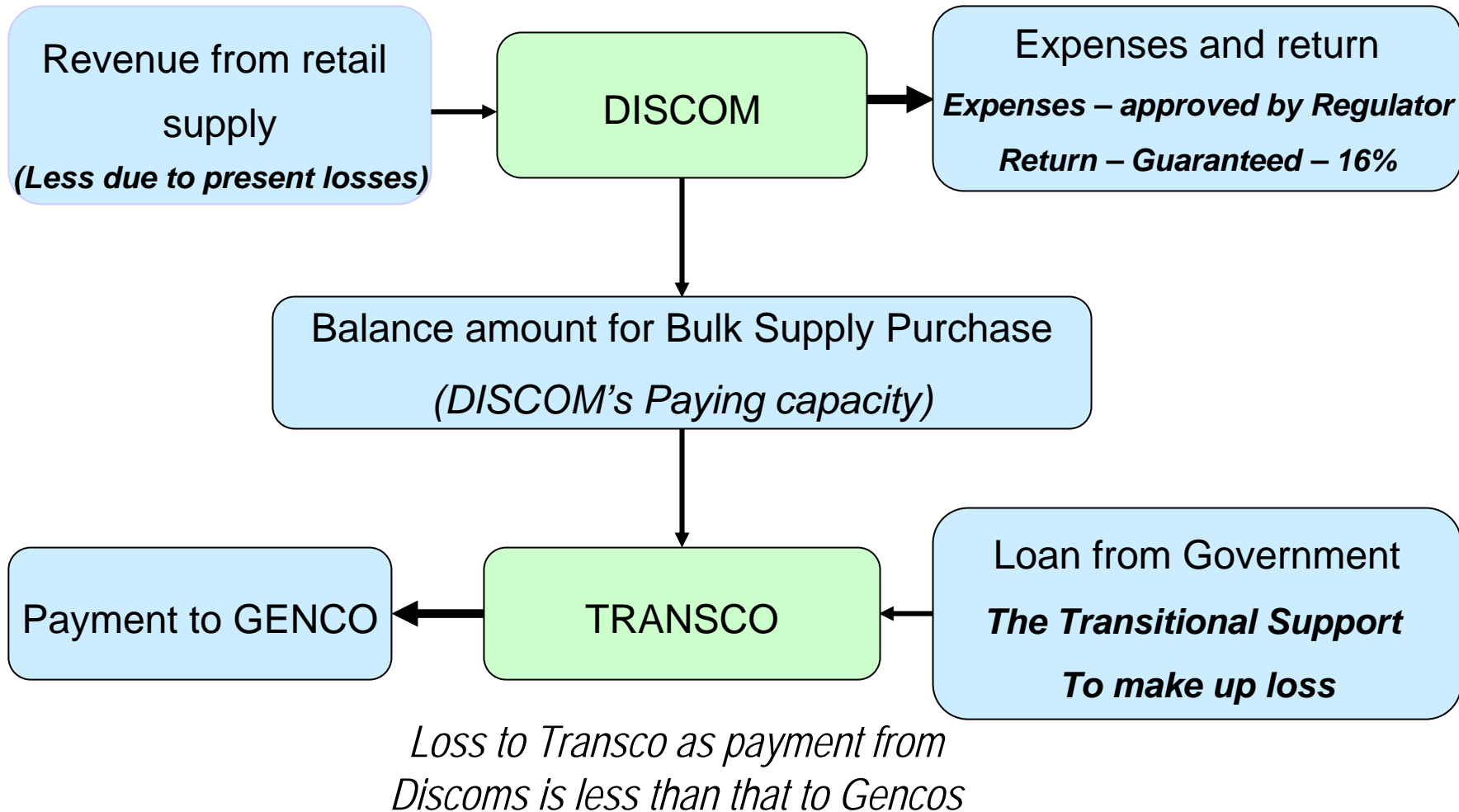


.... Reforms to release Govt. funds for priority sectors

Mitigation of Tariff Shock

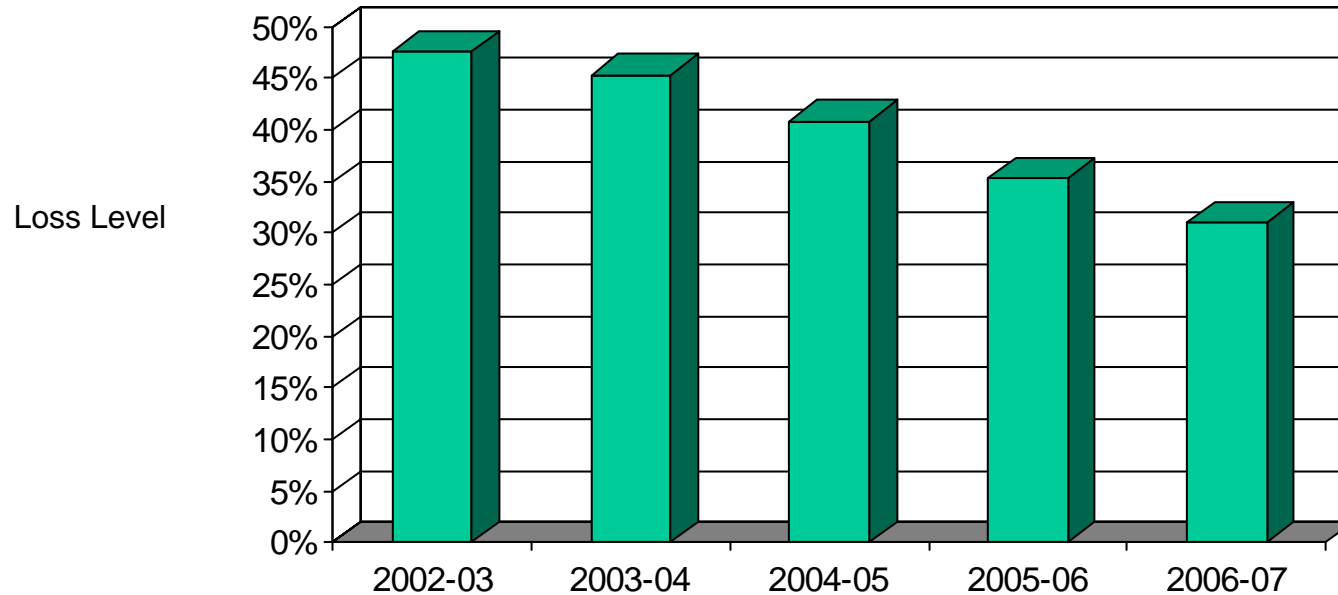


The Delhi Model



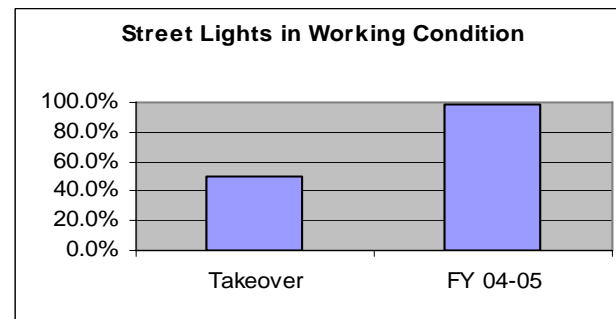
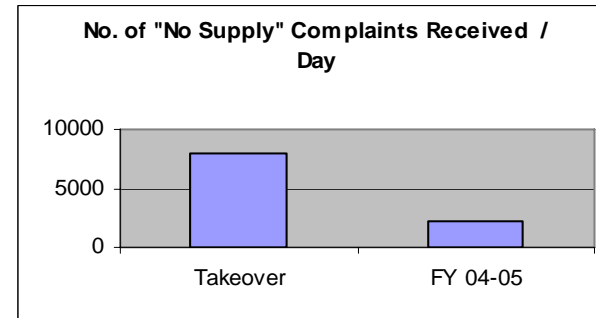
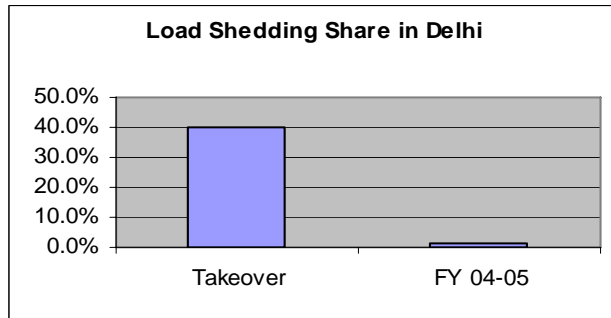
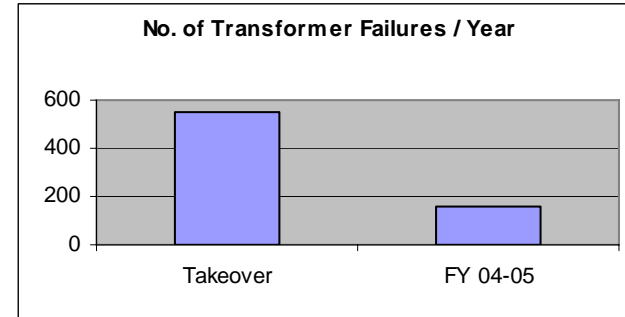
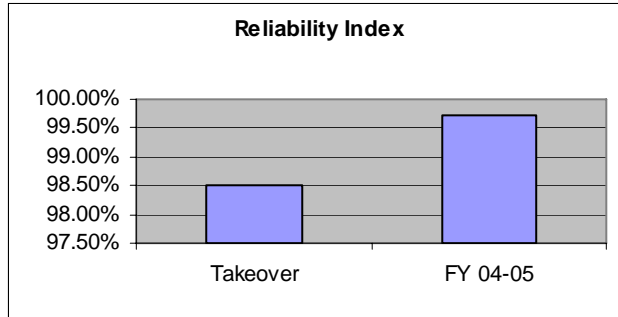
- Prescribe opening level of AT&C losses for distribution companies (DISCOMs), bidding to be on the basis of maximum reduction in AT&C loss
- Retail tariffs to be same for DISCOMs for five years (upto 2006-07)
- 16% post tax return allowed on a base of Paid-up share capital + free reserves + share premium less revaluation reserves less consumer contribution
- In addition, incentive sharing of 50% for exceeding loss reduction targets
- GNCTD to provide financial support in the form of a loan aggregating USD 784 Million (Rs. 34.50 billion) to transmission company (TRANSCO) over the next five years.

Annual break-up of commitments as quoted by Tata Power

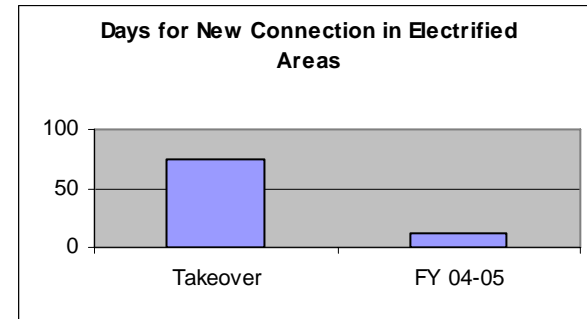
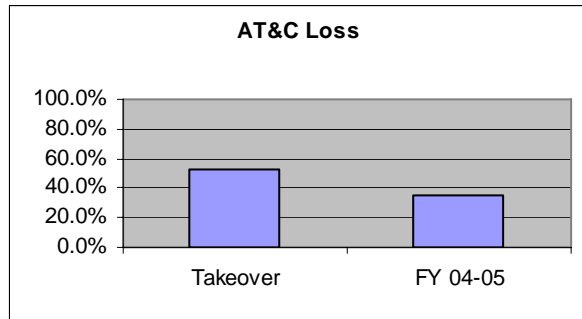
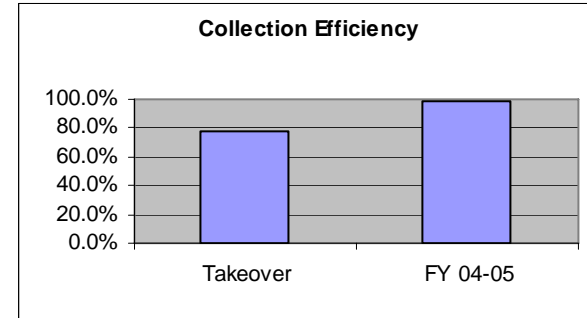
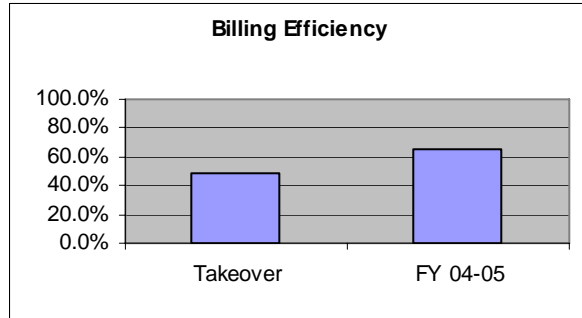


Total commitment for loss reduction in 5 years	- 17.00%
Opening loss level as decided by Regulator	- 48.10%
Closing loss level after 5 years	- 31.10%

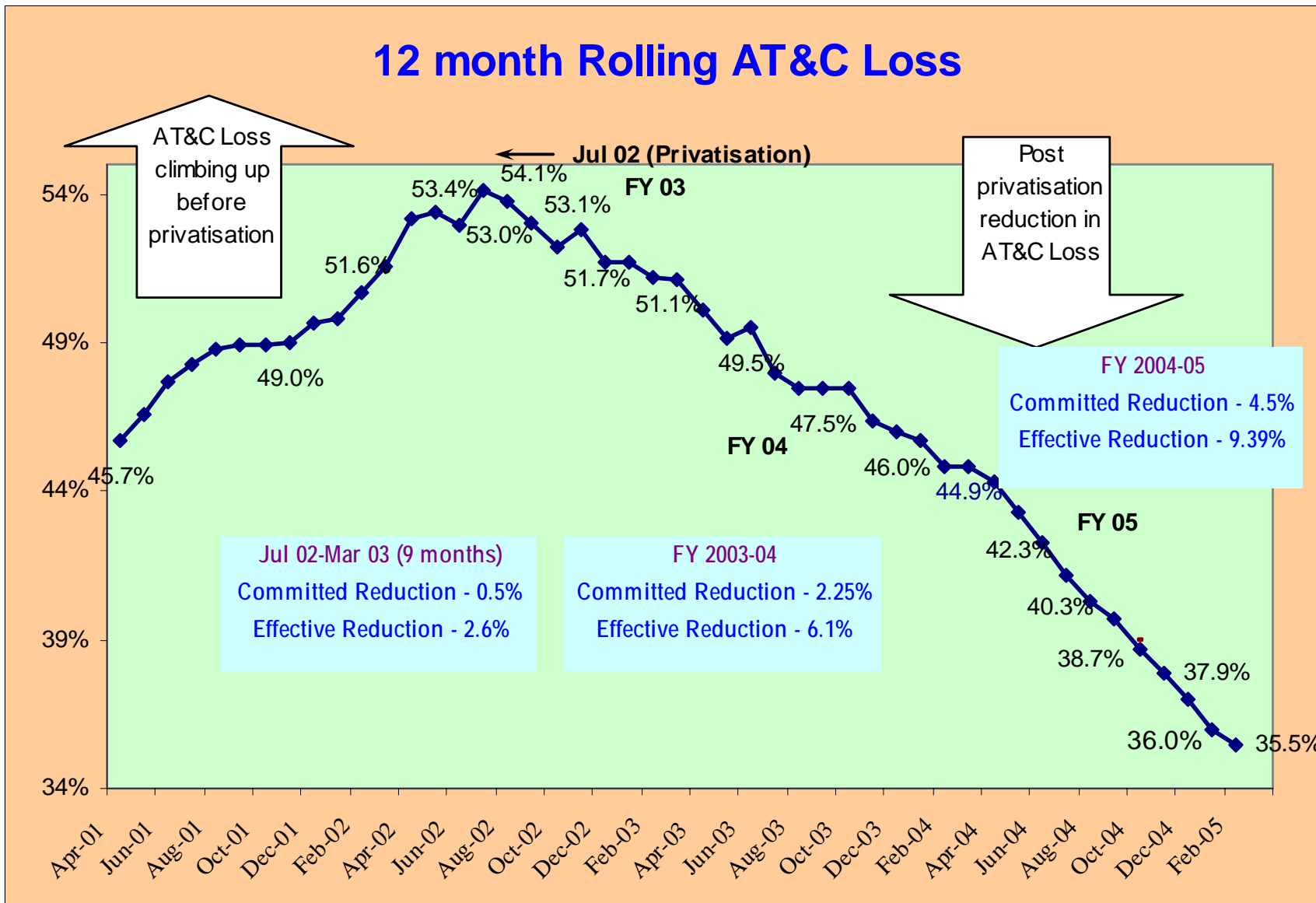
Operational Improvements in NDPL



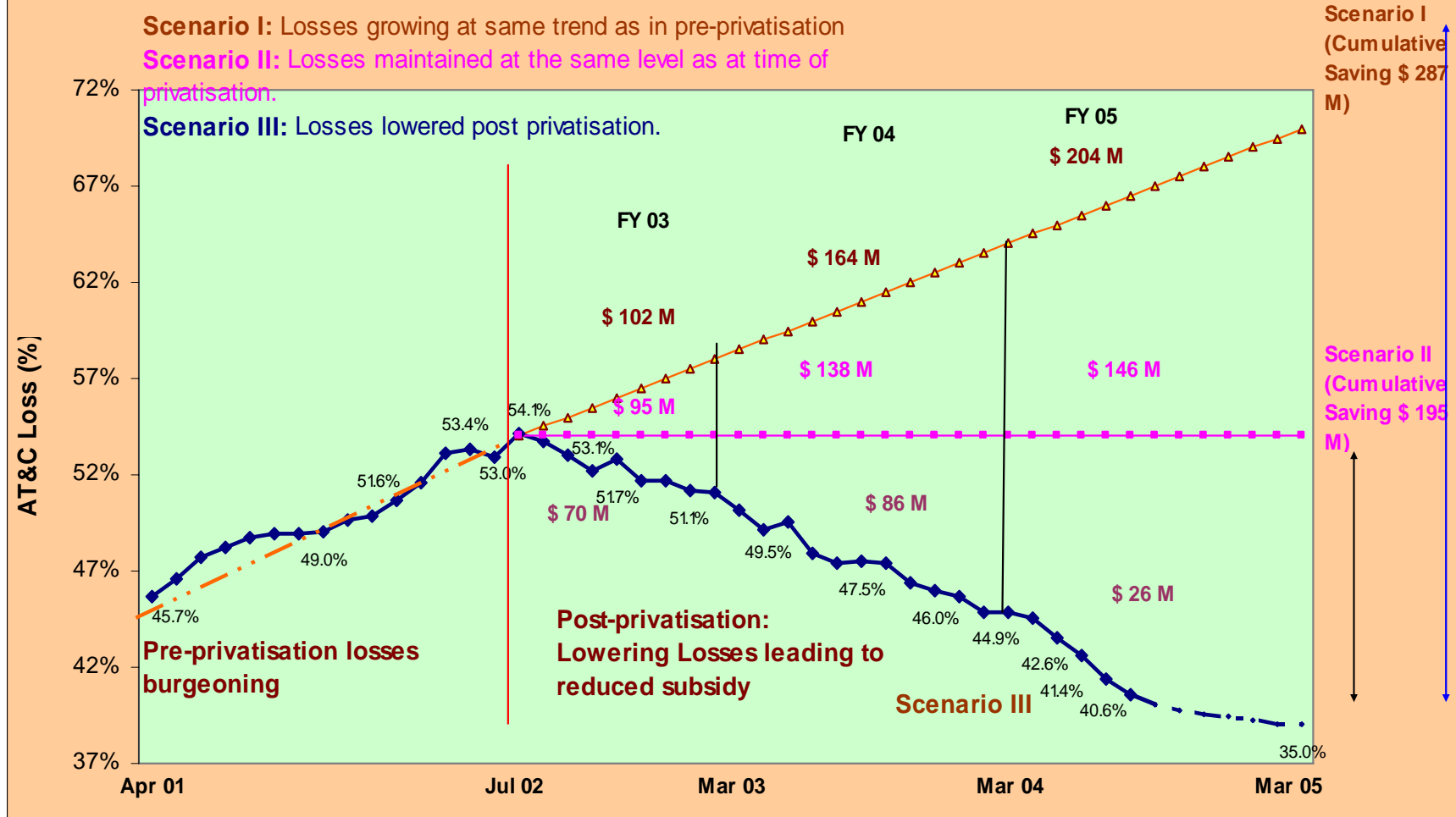
Commercial Improvements in NDPL



12 month Rolling AT&C Loss

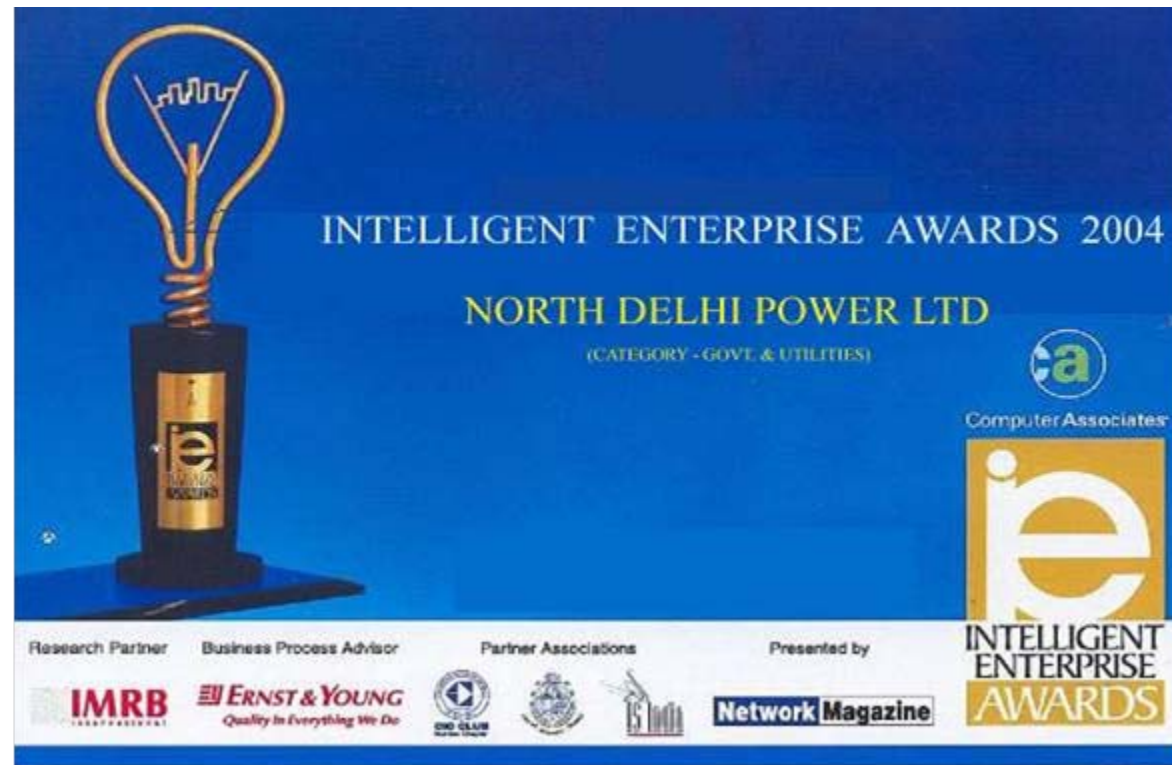


Power Sector Reforms Through Privatisation Transitional Support Vs Continuing With Financial Loss



If the losses had continue to rise as they were at the time of privatization in July 2002, it would have resulted in a loss of USD 470 mn to the state's exchequer in 3 years, only to the account of NDPL area of supply in Delhi. However, due to loss reduction, the transition support given by State is only USD 183 mn, thereby a net saving of USD 287 mn to the state due to distribution reforms through privatization.

- ❑ *NDPL bagged the prestigious Intelligent Enterprise Award, 2004 instituted by the Express Computer Network Magazine (The Indian Express Group) for innovative use of IT in the Government and utilities category. NDPL is the First Company in Power Utility Sector on which this award has been bestowed.*





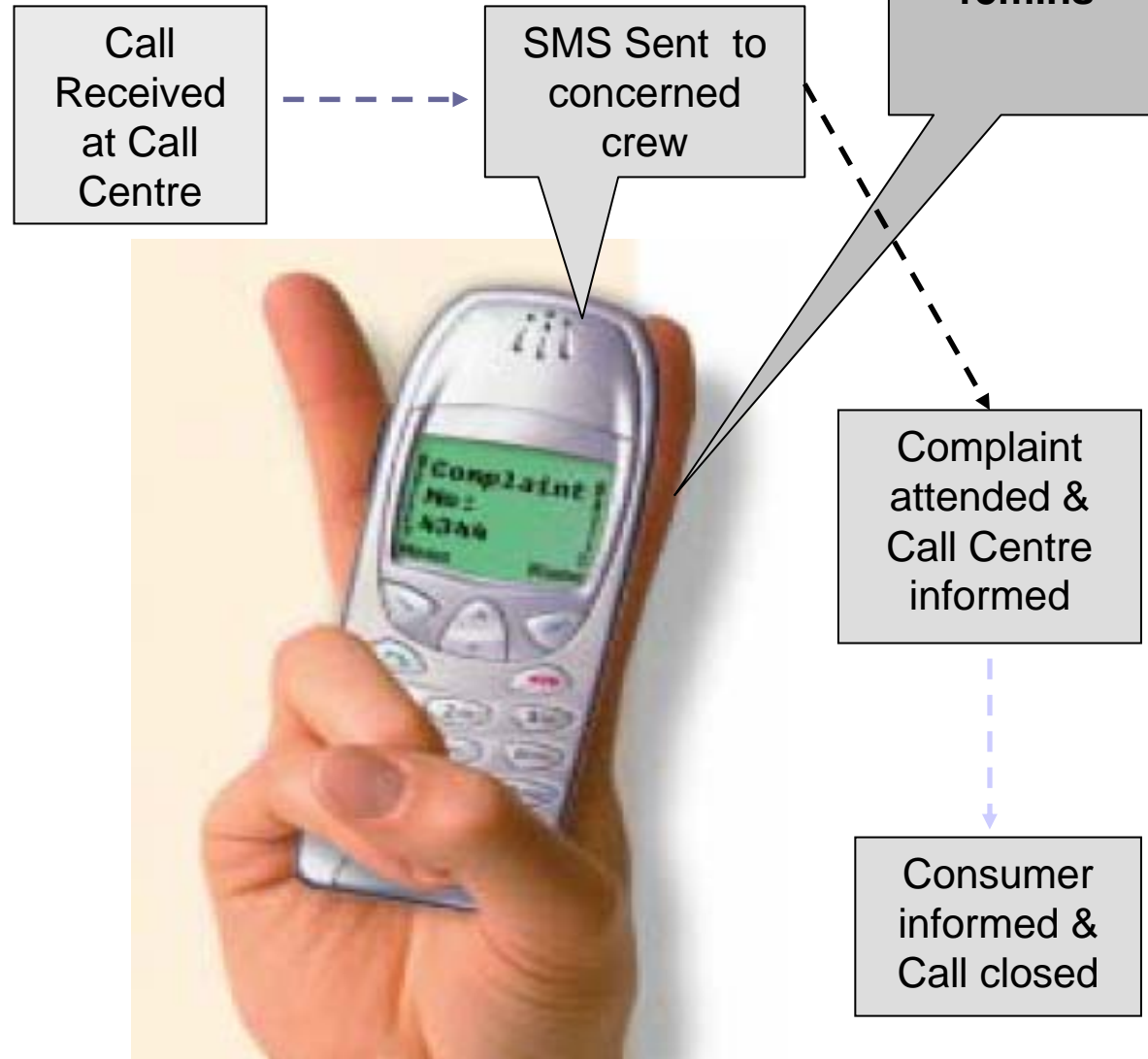
North Delhi Power Limited is an ISO 9001:2000 certified company for its Quality Management System

The Quality Management System Certificate has been bestowed on NDPL for services rendered by the Engineering, Projects, Information Technology groups of Technical Services Department, Human Resources Department and Stores Group of Operations Department.

Walking Hand in Hand – Performance v/s Reforms

A New Dawn for Consumers

- Complaint Redressal Through SMS
- Cell phones given to all Linemen



Enhancing Consumer Convenience *Consumer Care and Communication*

Fully networked consumer care centers launched

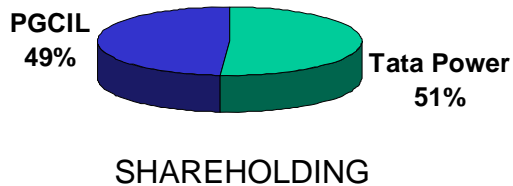


July 2002: 20 options for payment of Bills

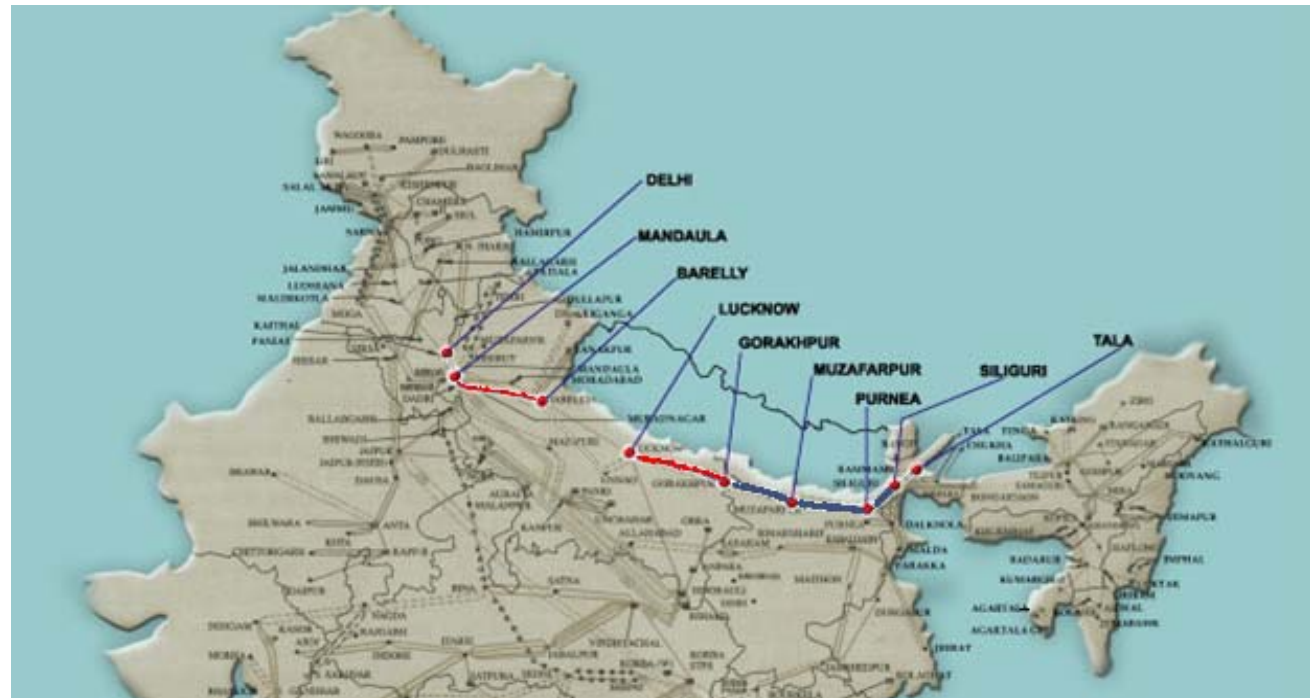
Dec 2004: 1134 locations for payment of Bills

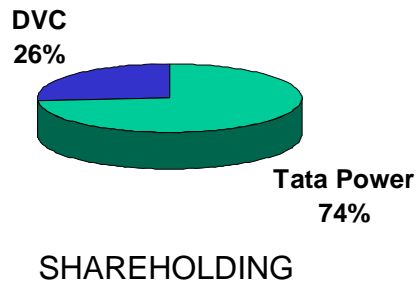
Public Private Partnership in Transmission & Generation

- First transmission project in India set up as a public – private partnership
- Developing a network covering a geographical span of 1171 km
- Beneficiary states: Eastern and North East regions
- Project cost: USD 350 Million



Power Grid Corporation of India Limited (PGCIL) is a Government of India undertaking





Damodar Valley Corporation (DVC) came into existence by an Act of the Central Legislature

- First initiative in public-private partnership in the area of generation
- 1000 MW thermal power project
- MoU was signed on 29th March, 2005
- Power will be exported to the power deficit western and northern states

Thank You