



# **Restructuring Strategies in the Indian Distribution Sector & NDPL's achievements**

**R C Kher, GM-Commercial**

# Presentation Overview

- Current Status in India
- Reform Initiatives in Distribution Sector
- Overview of Privatization
- Lesson learnt from Orissa Model
- Regulatory Affairs
- Brief of NDPL
  - Mission
  - Commercial Interventions
  - Performance Overview
  - Increasing Efficiency
  - Customer Service Standards
- Initiatives
- Concerns
- Future Challenges



# The Current Status in India

.... Today, it is only electricity sector, where a consumer pays for an unreliable supply with indifference, harassment and an obligatory attitude from the supplier. Indian electricity sector is on the verge of collapse only because electricity has not been treated as any other market commodity with consumerism as the very basis of the business.....



# The Current Status in India

## The current business equation . . .

. . . gap between average recovery price  
and cost is now up to Rs. 1 per Kwh . . .

## Resulting in to:

SEB's Commercial Losses:	1991 –	Rs.	3000 Crs
	2001 –	Rs.	30000 Crs



# The Current Status in India

- Out of total energy generated, only 55% (Rs. 62,000 crores) is billed and only 41% (Rs. 46,000 crores) is realized.
- Industrial and Commercial consumers are charged tariff higher than the average cost, consequently the share of industrial and commercial consumers has declined from 50% in earlier years to about 34% in 2000-01.
- Reported T&D losses of 25% have been grossly under estimated. Actual T&D loss varies between 40% to 50%. The loss to SEB's due to theft is estimated at Rs. 20,000 crores.



# The Reform Initiatives in Distribution Sector

- Growing Realization that Private Power Policy should have started from the Distribution end rather than Generation
- Financial assistance for Distribution reforms under Accelerated Power Development & Reform Programme (APRDP).
- District level distribution improvement plans / projects for all districts in the country.
- Distribution policy committee drawing up guidelines on privatization.



# The Reform Initiatives in Distribution Sector

..... Time has come to realize that reforms have to be seen more from the perspective of consumerization and commercialization of Distribution Business .....



# Reform Framework

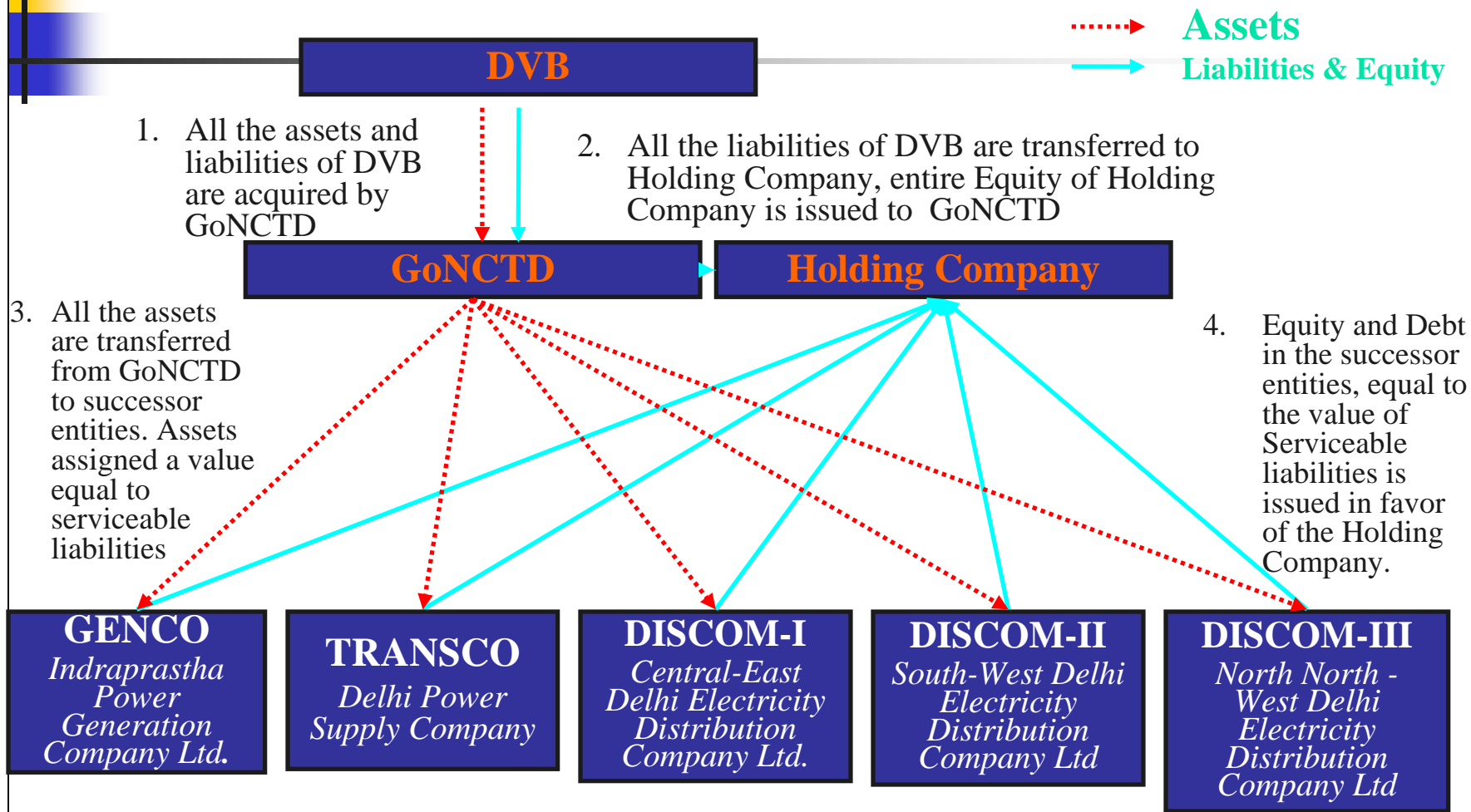
- DVB to be unbundled into functional corporate entities.
- Transfer Scheme for this purpose notified in Nov' 2001.
- Transfer scheme to be made effective close to the date of privatisation .
- At present only the three distribution companies (DISCOMs) to be privatised.
- To attract private investors, GoNCTD has issued Policy directives to DERC.
- Bidding criteria involves achievement of loss reduction and improvement of collection efficiency captured in a single Aggregate Technical & Commercial (AT&C) loss figure.



# Overview of DVB Privatization Model

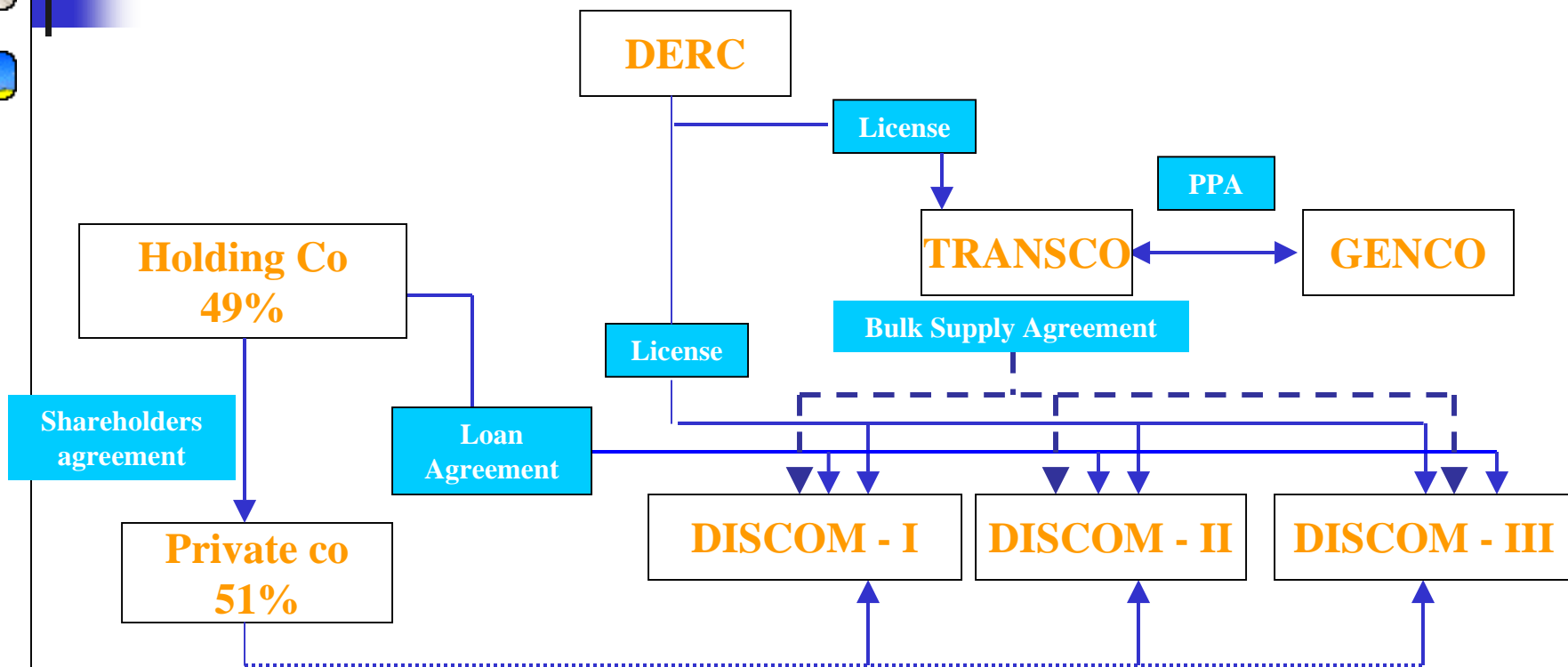
## Restructuring Of DVB

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# DVB Privatization - Contracting System

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# Transfer Scheme - Salient Features

## Allocation of Assets & Liabilities

- NDPL to start with clean opening Balance Sheets
- Past losses of DVB not to be passed to NDPL
- Only serviceable liabilities to be transferred to NDPL
- Receivables transferred to the extent of 1 month's billing

## Employee Terminal Benefits

- Employee terminal benefits to be funded by Govt. till date of transfer
- Trust to be established for this purpose

*Discoms not to carry DVB's burden*



# Efficiency Improvement Commitments

Bid criteria involved achievement of loss reduction and improvement of collection efficiency captured in a single Aggregate Technical & Commercial (AT&C) loss figure. Tata Power's commitments are as follows:

	2002-03	2003-04	2004-05	2005-06	2006-07	Total
Commitment of At&C losses	0.50%	2.25%	4.50%	5.50%	4.25%	17.00%
Loss levels at the end of year	47.6%	45.35%	40.85%	35.35%	31.10%	
Minimum Stipulated Losses	1.5%	5%	4.5%	4.25%	4%	19.25%

**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%**

.... Similar commitments were made for other privatized Discoms.



# Govt. Support – Confidence building measures

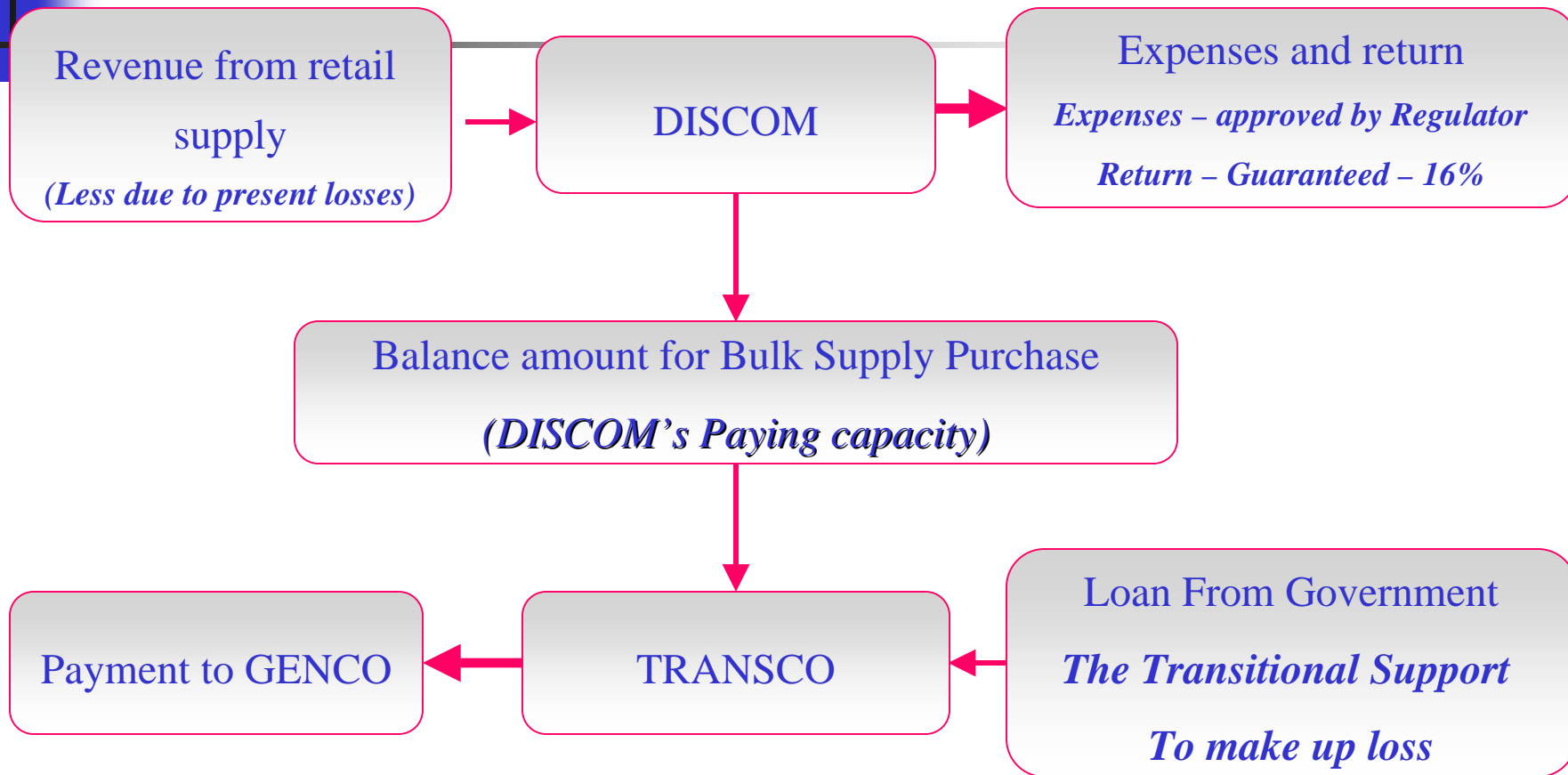
- Strong Commitment of GoNCTD and GOI in piloting the entire process.
  - Investors' Conference organized before RFQ stage - participation of CM, LG of Delhi, Minister of Power – GoI, and other senior officials of GoNCTD
  - After RFQ, concept paper brought out and another round of discussions held with bidders
  - Investors interaction meeting held to understand the RFP and clarifications/suggestions incorporated
  - Meeting held with CM, Union Minister of Power and other senior officials of GoNCTD and DVB and support assured on law & order, timely payment of electricity bills by various Govt. departments, commitment of GoI and GoNCTD.
  - Another round of investors' conference is scheduled for March 11 with task force constituted by Govt.

*Govt. strong will and support vital to the success of the entire privatization process*



# Self Sustaining Model

## Financial Support From Government During Transition Period



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# Lessons learnt from Orissa Model

Issues	Orissa Experience	How This Has Been Taken Care of In Delhi
Govt. Commitment	Govt. distanced itself as soon as the privatization took place	Govt. committed to the Success of the Reform Process – <ul style="list-style-type: none"><li>✓ Clear cut Policy directions for 5-years</li><li>✓ Committed Support~ Rs. 2600 Crores</li><li>✓ Anti-Theft legislation to be enacted</li></ul>
Loss Levels	<ul style="list-style-type: none"><li>- Baseline data mismatch</li><li>-Difficulty in segregating losses</li></ul>	Concept of 'AT&C' Losses to : <ul style="list-style-type: none"><li>✓Reduce scope for baseline data errors</li><li>✓Provide a more Realistic Loss Level</li><li>✓Provide greater comfort since approved by Commission</li></ul>



# Issues Faced In Orissa – Incorporations Made In DVB Privatization



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Issues	Orissa Experience	How This Has Been Taken Care of In Delhi
Receivables	<ul style="list-style-type: none"> <li>- Unrealistically high</li> <li>- Bogus Billing</li> <li>- Bad Debts not allowed by Commission</li> </ul>	<ul style="list-style-type: none"> <li>✓ Limited to Last Months Receivables</li> <li>✓ Past receivables to the account of Holding Company- No Obligation to Collect (20% incentive on amount collected)</li> <li>✓ Level of Receivables In Line with the Avg. Monthly Billing for last 6-Months</li> </ul>
Regulatory Involvement	No prior involvement	<ul style="list-style-type: none"> <li>✓ Full Involvement from beginning</li> <li>✓ Indicated Amenability to Reform</li> <li>✓ Process</li> <li>✓ Policy Directives accepted in BST order</li> <li>✓ Recognition of DISCOM in BST order</li> </ul>
Asset Valuation	<ul style="list-style-type: none"> <li>- Assets revalued at higher levels prior to bidding process</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assets valued through Business Valuation based on revenue earning potential</li> </ul>



# Issues Faced In Orissa – Incorporations Made In DVB Privatization



Issues	Orissa Experience	How This Has Been Taken Care of In Delhi
Audited Accounts	<ul style="list-style-type: none"> <li>- Audited Accounts not available</li> <li>- Led to Post Takeover Problems with the Statutory Bodies</li> <li>- Wrong Projections of Accounts</li> </ul>	<ul style="list-style-type: none"> <li>✓ Audited Accounts not available</li> <li>✓ However clean balance sheets assured to DISCOMS</li> <li>✓ Business valuation Approach Mitigates Risk of asset value</li> <li>✓ Stores &amp; Spares, Loans to Personnel etc to be based on actual Audit</li> <li>✓ DISCOMS to be Transferred only with Serviceable Liabilities</li> <li>✓ Non-Serviceable Liabilities to the Account of Holding Company</li> </ul>
Assured Returns	<ul style="list-style-type: none"> <li>- Governed by the Principles of Vith Schedule</li> </ul> <p>Returns Restricted by</p> <ul style="list-style-type: none"> <li>■ Wrong Projections of Losses</li> <li>■ Inadequate Increase of RST</li> </ul>	<ul style="list-style-type: none"> <li>✓ The Policy Guidelines Ensures 16% RoE at all times</li> <li>✓ BST to be the balancing factor</li> </ul>
Funding Support	<ul style="list-style-type: none"> <li>- No support from Commercial Lenders</li> <li>- World Bank funds not made fully available</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assurance sought from Govt. for funds under the APDP, PFC sanctioned schemes,etc.</li> <li>✓ Bidding structure assures returns which facilitates commercial loan availability</li> </ul>





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# Regulatory Affair



# Guidelines of DERC

- Duration of 30 days for new LT Connection
- Simplified procedure for Load enhancement / Reduction and Name Change
- Complaint Handling Procedures on Metering and Billing
- Complaint Handling Procedures on No Current / Failure of Power Supply
- Fixation of Tariff Structure



# Compliances of Guidelines

- One Application cum Agreement for any connection
- Online Allocation of Connection Number and deposition of amount in Consumer care and cash collection centers.
- Opening up of Centralized Call center for complaints





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# Brief of NDPL



# Mission

- To deliver quality & cost effective Electricity
- To ensure excellence in Customer Care
- To create a work environment which encourages teamwork, learning & innovation.
- To meet or exceed all stakeholder expectations.
- To enrich quality of life in the society that we operate in.



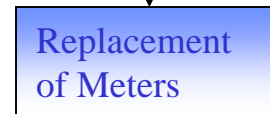
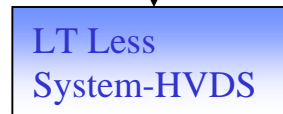
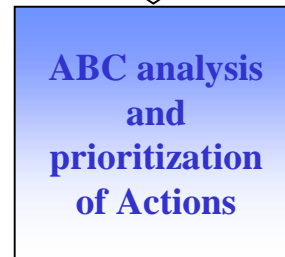
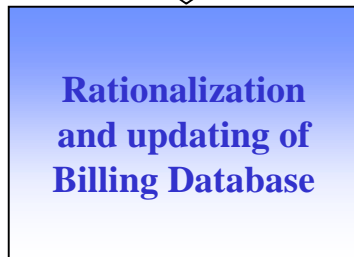
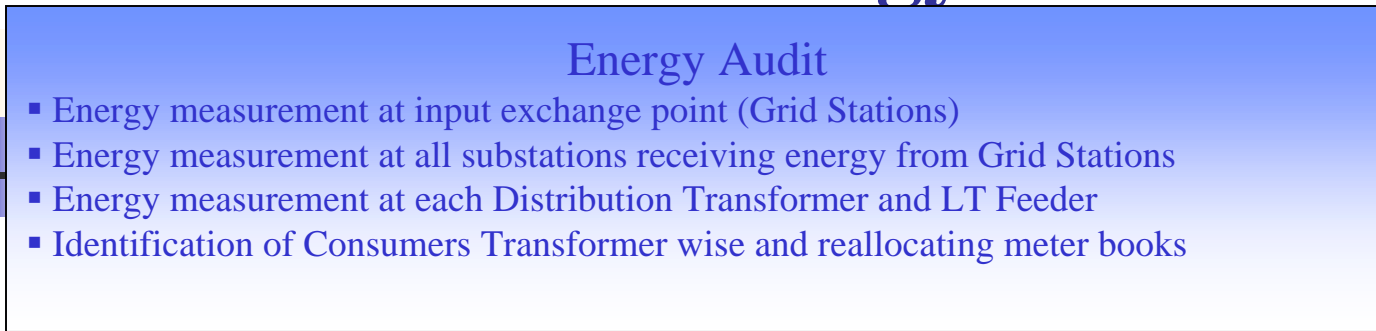


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# Commercial Interventions



# Energy Audit and AT & C Loss Reduction Strategy



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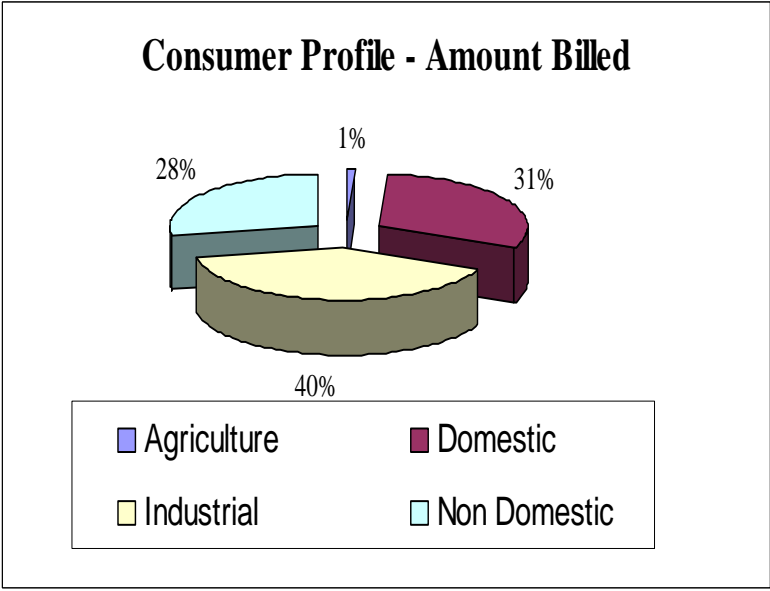
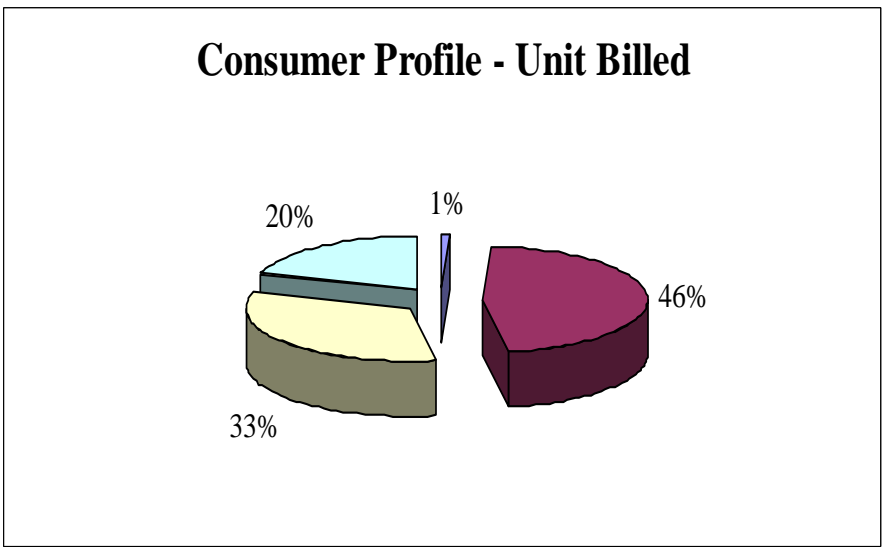
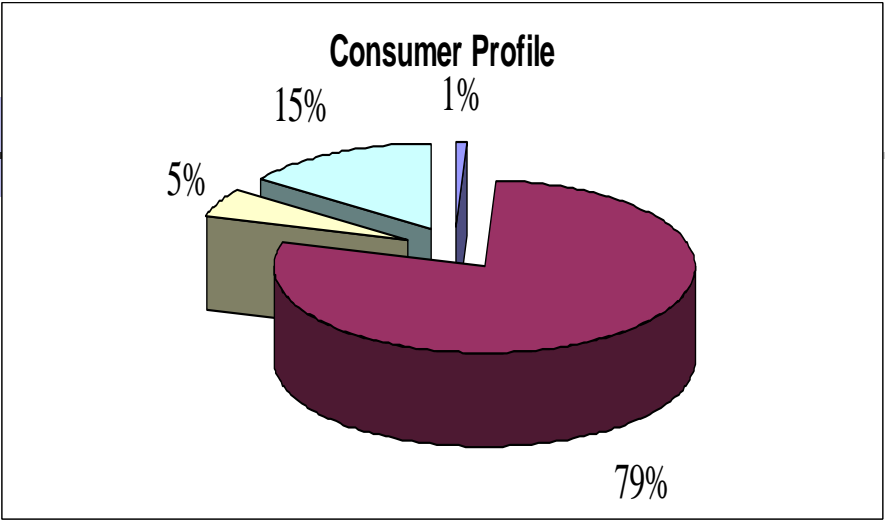


# North Delhi Power Limited (NDPL)

## Consumer Profile



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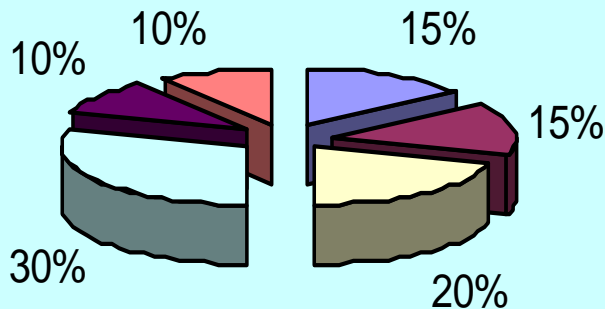


- Agriculture
- Domestic
- Industrial
- Non Domestic



# An analysis of AT&C Component

Components of AT&C Loss



- **Technical**
  - Sub-transmission (66kV/33kV)
  - Distribution (11kV & below)
- **Direct theft**
  - Unmetered
  - Unauthorised Colonies
  - Street Lights Poles
- **Metering Errors**
  - Import/Export metering errors
  - Stop meter /Slow meter
  - Defective meter
  - Meter not read
  - CT Ratio errors

## Billing/Collection/Process Deficiencies

- Consumer not billed
  - Deliberate under billing
  - Provisional billing
  - Bills not delivered
  - Bills on account of old meter when changed
  - Collection inefficiency
- **Consumer billed but not credited**
  - **Unauthorised colonies/JJ Clusters**
  - **Misuse of category**
  - **Part payment**
  - **Line disconnected consumer**





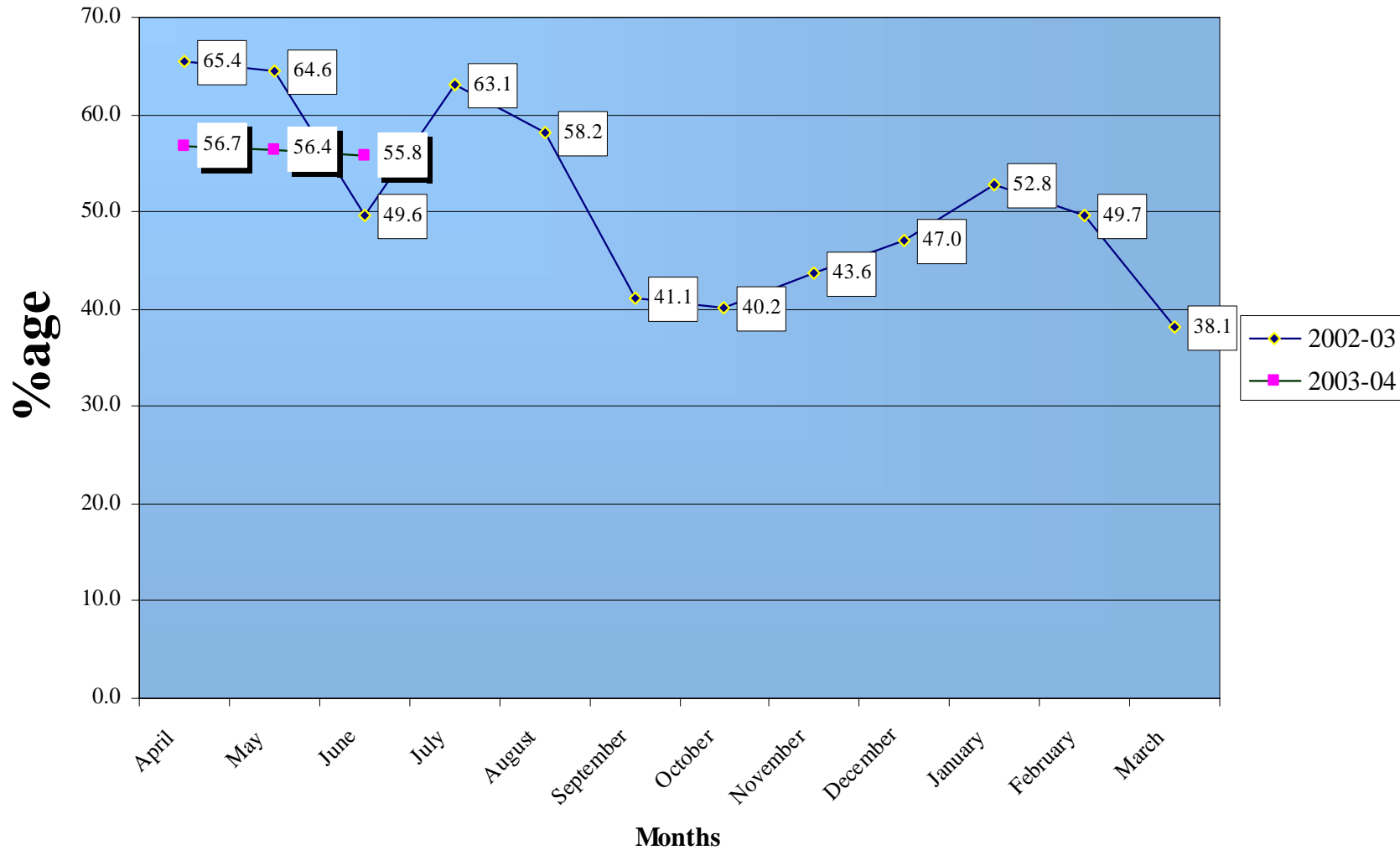
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# *Performance Overview*



# Performance Overview

## AT&C Loss Reduction



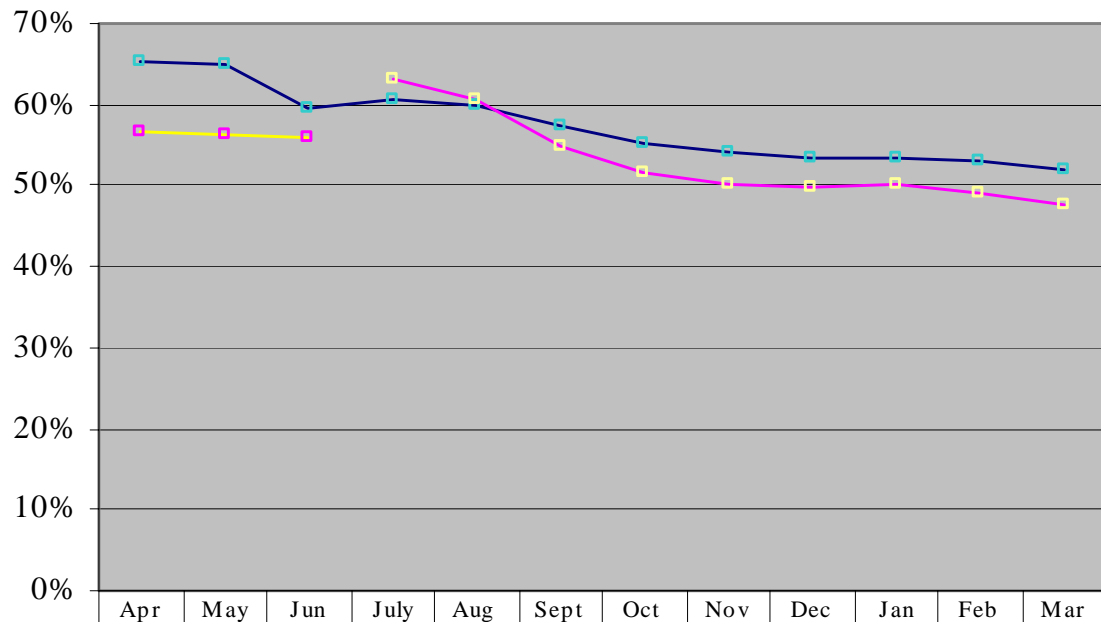
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AT & C Losses in June 2002 as compared to June 2003 is less due to waiver of LPSC Scheme launched by erstwhile DVB



# Cumulative AT&C Losses Comparison (Month Wise)

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	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Cuml. Losses '02-03	65%	64.97%	59.57%	60.48%	60.01%	57.27%	55.12%	53.95%	53.31%	53.26%	52.99%	51.90%
Cuml. AT&C Losses (July-April '02-03)				63.10%	60.65%	54.91%	51.58%	50.24%	49.77%	50.20%	49.10%	47.60%
Cuml. Losses '03-04	56.71%	56.43%	55.79%									



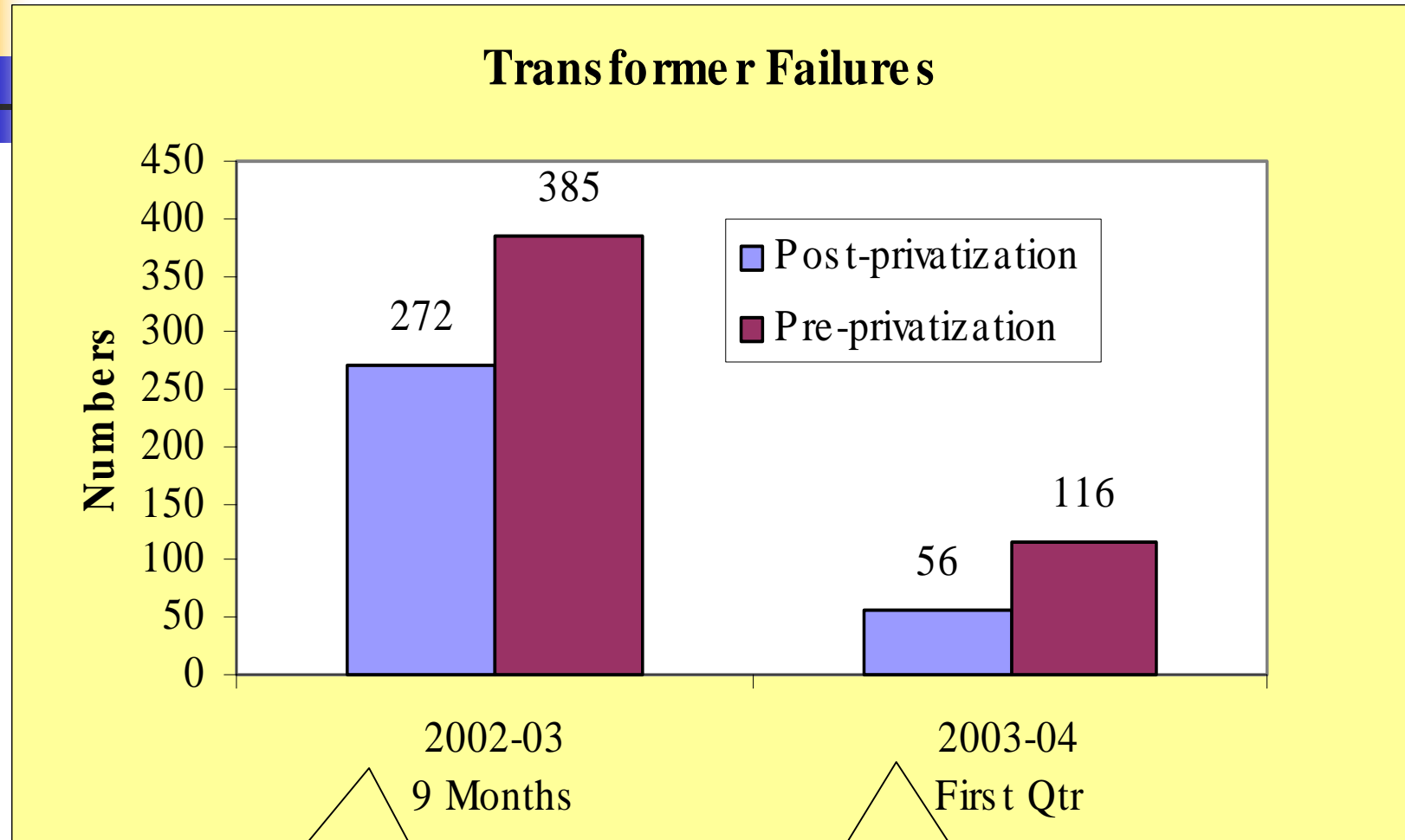


Month	Energy Input (Mus)					Energy Billed (MUs)				
	2001-02	2002-03	2003-04	% change bet FY-02 to 03	% change bet FY 02 to 03	2001-02	2002-03	2003-04	% change bet FY-02 to 03	% change bet FY 02 to 03
April		462	438		-5%		173	210		21%
May		525	494		-6%		200	229		14%
June		537	530.72		-1%		218	252		15%
July	489	528		<b>8%</b>		256	245		<b>-4%</b>	
August	485	523		<b>8%</b>		255	256		<b>0%</b>	
September	446	435		<b>-2%</b>		265	290		<b>9%</b>	
October	390	433		<b>11%</b>		251	260		<b>4%</b>	
November	376	388		<b>3%</b>		234	235		<b>0%</b>	
December	410	393		<b>-4%</b>		183	220		<b>20%</b>	
January	428	442		<b>3%</b>		175	219		<b>25%</b>	
February	383	381		<b>-1%</b>		184	222		<b>21%</b>	
March	410	397		<b>-3%</b>		201	218		<b>8%</b>	
<b>Total from July to March</b>	3817	3921		3%		2004	2166		8%	
<b>Total from April to June</b>		1524	1463		<b>-4%</b>		591	690		<b>17%</b>



# Power Reliability

## Distribution Transformer Failure at NDPL



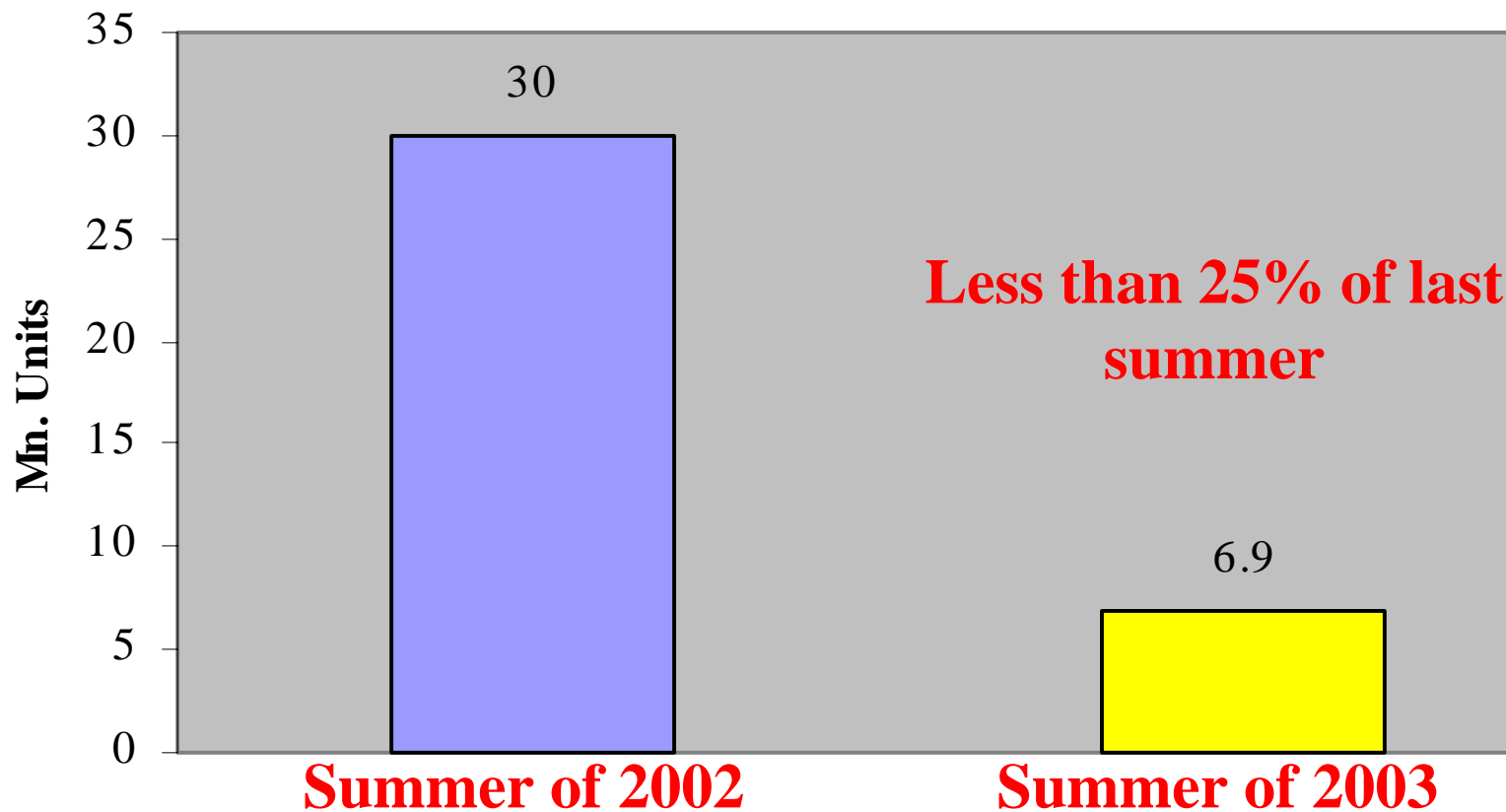
**Lower by 29%**

**Lower by 52%**



# Power Reliability

## Load Shedding – Summer 2003



*Summer months compared -April, May and June*

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# Power Reliability

## Bench Marking Introduced

Index	Unit	US	NDPL
<b>SAIFI</b>	Numbers	1.26	19
<b>CAIDI</b>	Hours	1.5	2
<b>SAIDI</b>	Hours	2	38
<b>Reliability Index</b>		99.3%	99.5%

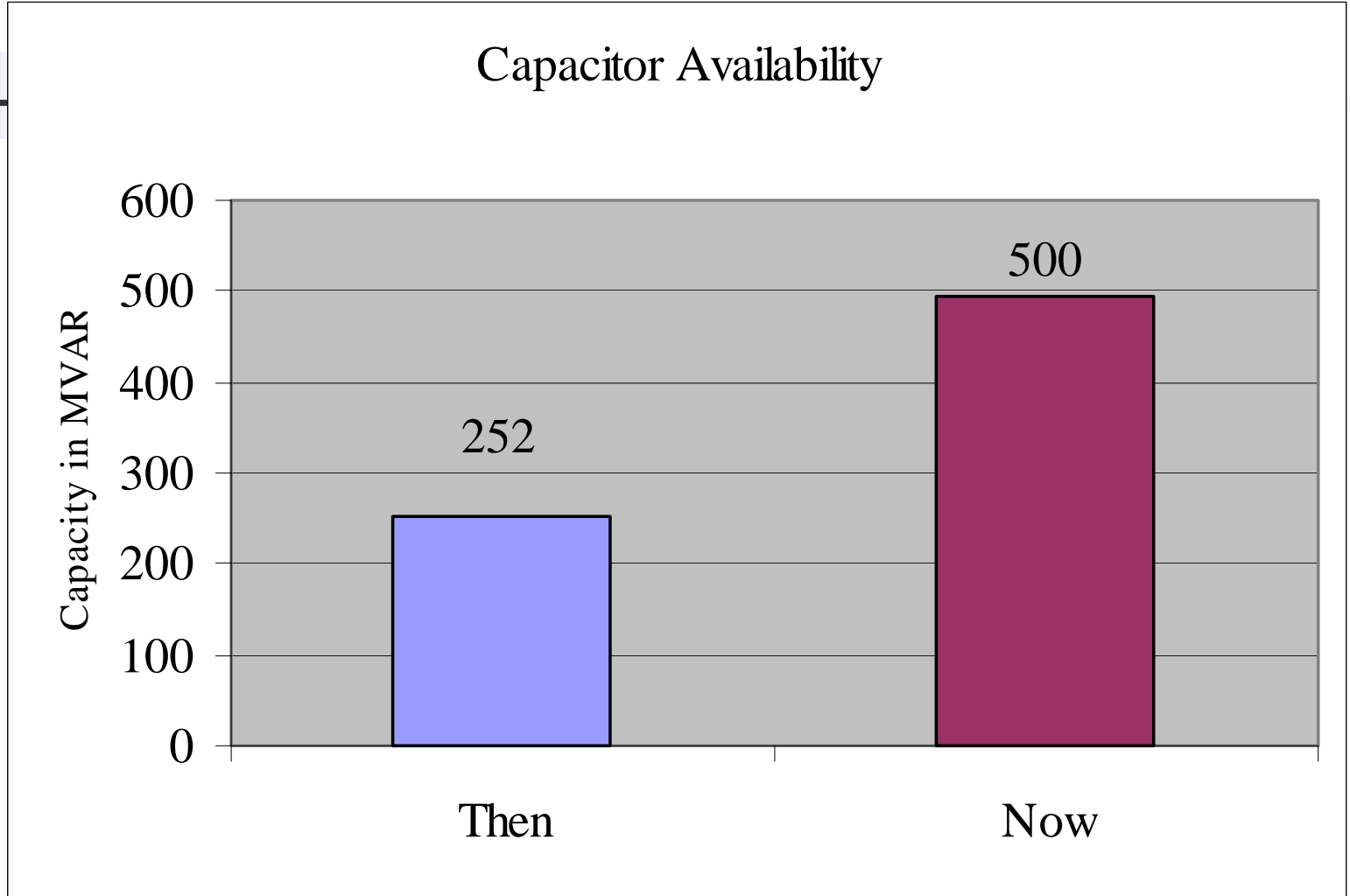
<b>SAIFI</b>	No. of interruptions to each consumer in a year
<b>CAIDI</b>	Time taken to restore supply for each interruption
<b>SAIDI</b>	Total duration of interruptions in a year
<b>Reliability Index</b>	Percentage of duration of supply availability



# Power Quality



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# Energy Audit – Performance

From July 02 to June 03

## Energy Audit

- |                             |                  |                   |
|-----------------------------|------------------|-------------------|
| ▪ Transformer wise Indexing | <b>DTs</b>       | <b>2,011</b>      |
|                             | <b>Consumers</b> | <b>3.46 Lakhs</b> |
| ▪ Meters Installed:         |                  | <b>108,030</b>    |

## **Enforcement**

- |                                 |              |
|---------------------------------|--------------|
| ▪ Thefts Detected:              | <b>2,328</b> |
| ▪ Amount Recovered (Rs. Crores) | <b>9.38</b>  |





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# *Increasing Efficiency*



# Load Despatch Centre

Computerized,  
state-of-the-art,  
centralized Load  
Dispatch Centre set  
up

Measurements now  
on the way to do  
daily 15 minute  
plots on Temp vs  
Load and freq vs  
Load



**Load Despatch Centre**



# State of the Art Switchgears installed



**Newly Installed State of Art VCB**



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# Technology Interventions



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**High Voltage Distribution System**



# Mobile Transformer Units

Immediate restoration of power supply by Mobile Transformer Units in the event of failure of distribution transformer



Mobile Transformers

## Mobile Maintenance Crews

New fully equipped 24-hour mobile maintenance crew deployed with communication facilities.

### Neighborhood Mates

NNM Mobile Vans made available to patrol areas and assist maintenance crew in consumer interactions & communication, especially during long interruptions.



**24 Hr. Mobile Maintenance Van**





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# *Customer Service Standards*

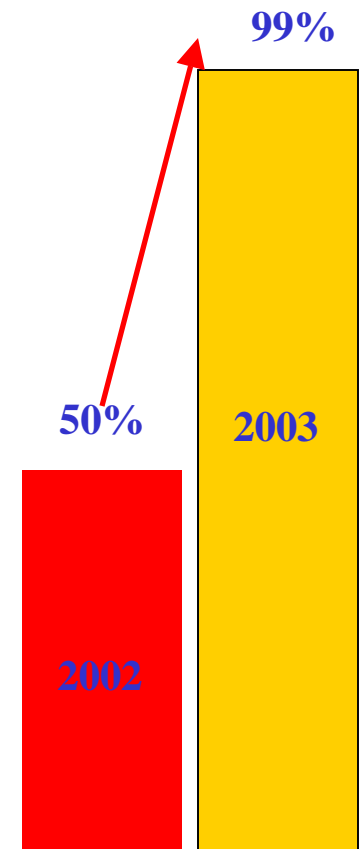
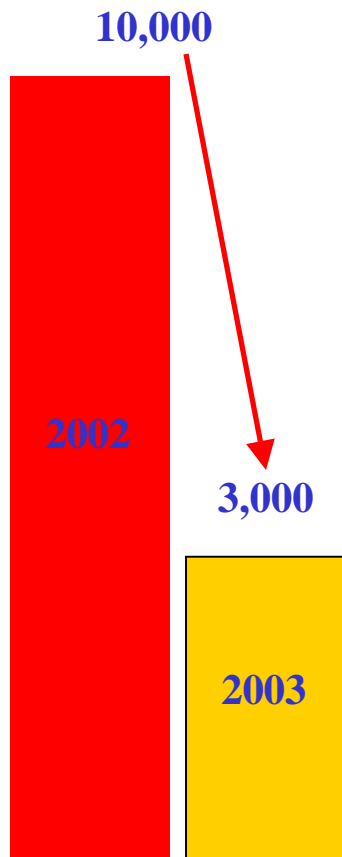


# Call Center Performance

## Summer of 2002 and 2003

Average Daily  
Calls Received

Average Daily  
Calls Attended



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# Fault Management System



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## SMS Facility

Cell phones given to all linemen attending no-current complaints. On receipt of complaint, Call Centre sends direct SMS to concerned lineman. Post the fault being attended, SMS sent back to Call Centre for information to Consumer.



# Consumer Care Initiatives



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# New Consumer Initiatives



*Daily Electricity  
Beat on AIR FM*

Regular update on power situation in North & North West Delhi – load shedding, failures, reasons thereof & important service numbers



# “SUGAM” Initiatives Launched

- 100% Consumer Commercial data uploaded on website
- Bill Payment Options
- Automated Meter Reading for Large Industrial consumers
- New Bill Format
- Information kiosks at NDPL Consumer Care Centers



# www.ndplonline.com

The screenshot shows a Microsoft Internet Explorer browser window displaying the website for North Delhi Power Limited. The browser's address bar shows the URL <http://www.ndplonline.com/index.jsp>. The website's header features the NDPL logo and the slogan "Power to the People!". Below the header, there are navigation links for "About Us", "Tariff Schedule", "Commercial Information", and "Associate Sites". The main content area is divided into several sections: a left sidebar with links to "Consumer Bills & Account", "Know Your Bill", "Energy Calculator", "Bill Payment", and "Photogallery"; a central text block describing NDPL as a joint venture between Tata Power and the Government of NCT of Delhi; and a right sidebar with a "News" section containing a blue box with the text "Online consumer care & bill payment centres launched". At the bottom of the page, there is a footer with copyright information, a "Visitor No:" counter showing "4055", and a "Contact Us | Disclaimre" link.

North Delhi Power Limited - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address <http://www.ndplonline.com/index.jsp> Go Links

About Us | Tariff Schedule | Commercial Information | Associate Sites

**NDPL**  
**North Delhi Power Limited**  
A Tata Power and Delhi Govt. joint venture

Power to the People!

Vision & Mission | Quality Statement | Human Resources | Consumer Services

Consumer Bills & Account  
Know Your Bill  
Energy Calculator  
Bill Payment  
Photogallery

**NDPL North Delhi Power Limited (NDPL)**, distributes electricity in the North & North West areas of Delhi. NDPL is a Joint Venture between Tata Power and Govt. of NCT of Delhi as a result of the privatisation of electricity distribution in Delhi on July 1, 2002.

Download Forms  
Resource Center  
Announcements

**Voluntary Declaration Scheme (VDS)**  
it Distribution & Retail Supply License. --Click the links-- **Public Notices** Charges Payable

News  
Online consumer care & bill payment centres launched

Contact Us | Disclaimre

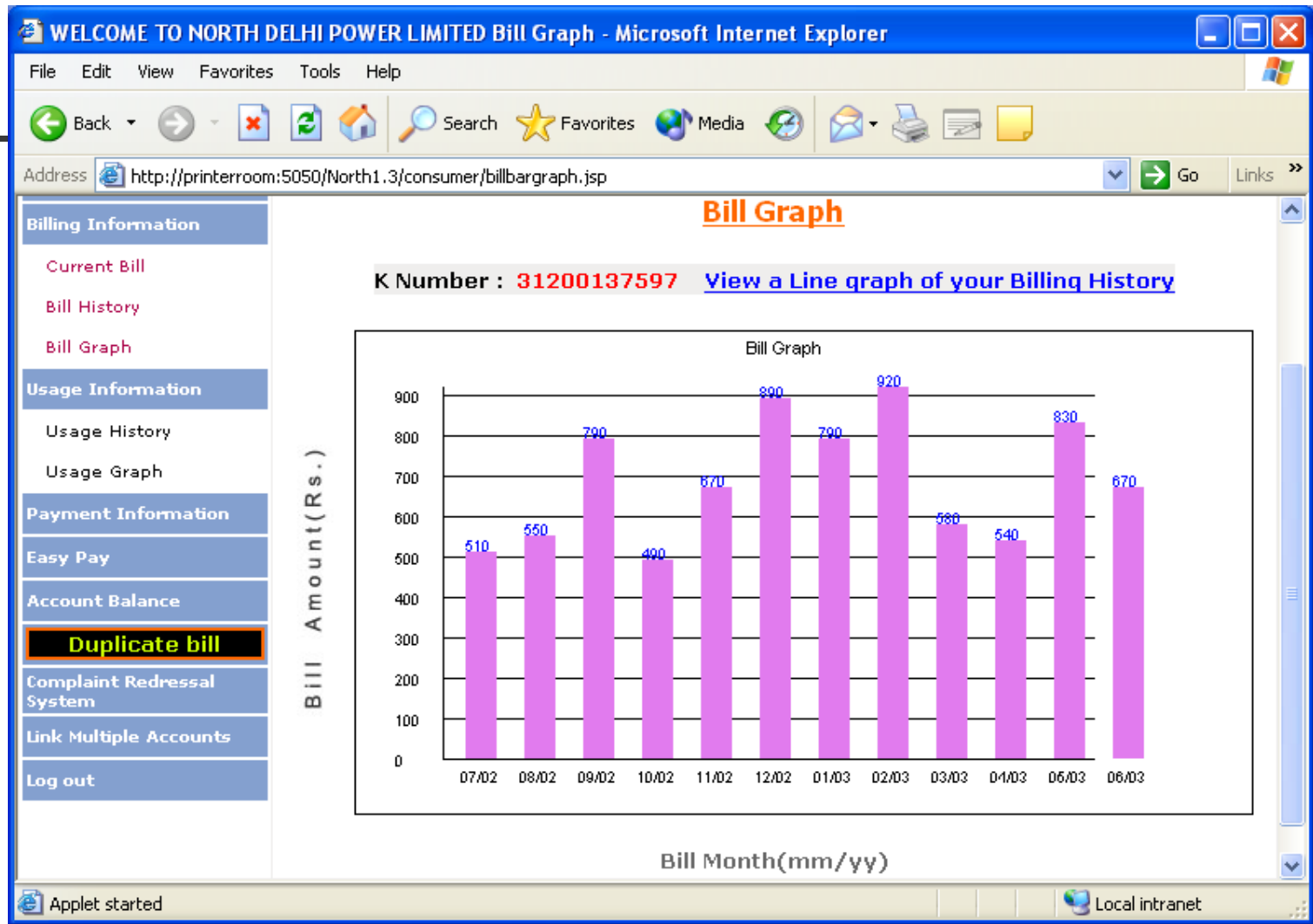
[A Tata Power and Delhi Govt. joint venture] - Copyright © 2003 North Delhi Power Limited. Reproduction in whole or in part without permission is prohibited. Visitor No: **4055**

Internet


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# Website – View usage pattern



# Website – Complaint Redressal



REGISTRATION SCREEN - Microsoft Internet Explorer

**North Delhi Power Limited**

Consumer service center

K No : 31200137597      Name : LT. GENL. JAGDISH NARAIN

**Nature of Complaint (\* Please select the relevant complaint)**

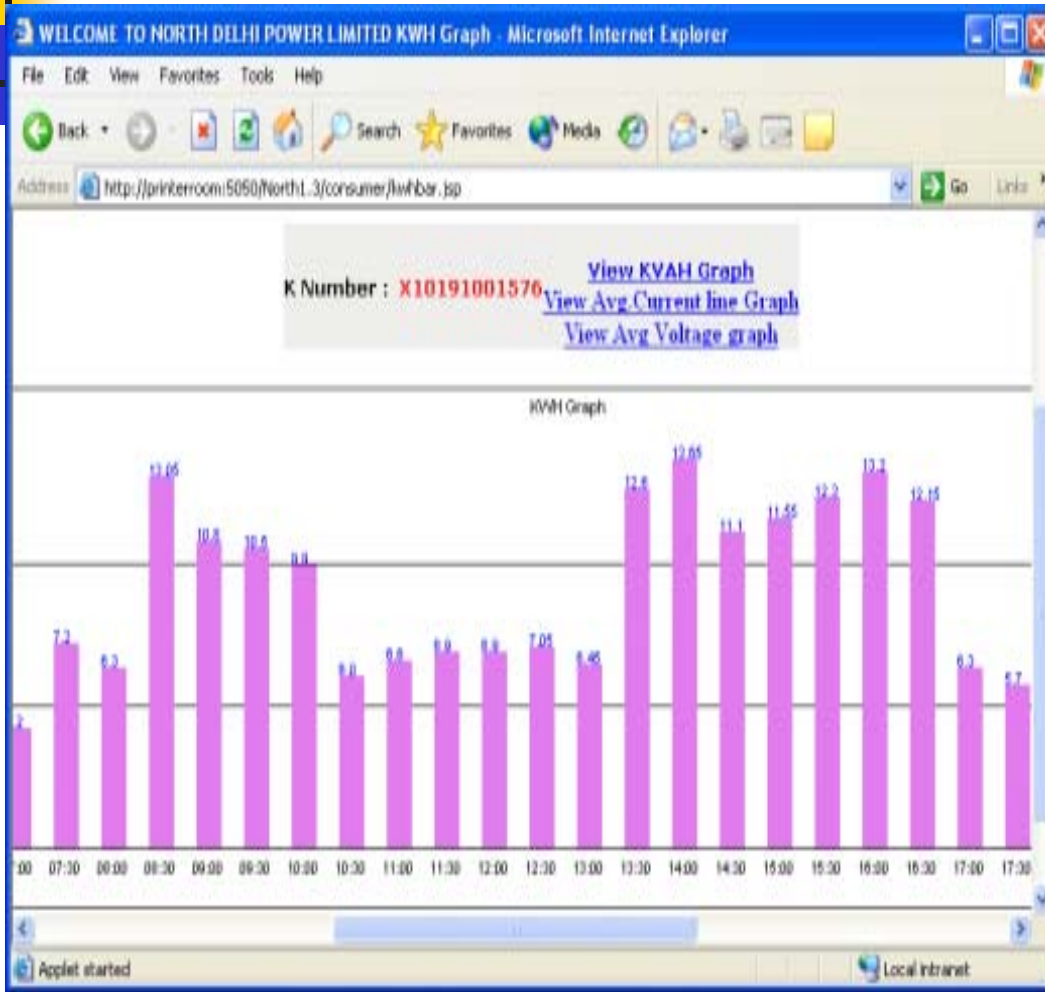
<input checked="" type="radio"/> Wrong meter reading	<input type="radio"/> Meter stuck up
<input type="radio"/> Wrong billing	<input type="radio"/> Meter burnt
<input type="radio"/> Arrears dispute	<input type="radio"/> Other meter defects
<input type="radio"/> Addl. Charge/Surcharge dispute	<input type="radio"/> Load Change
<input type="radio"/> Change of Name	<input type="radio"/> Change of category
<input type="radio"/> Meter Replacement Not Effective	<input type="radio"/> Others

Other Details:

- Log complaints online
- Automatic intimation to concerned staff and the call center
- Track your complaint
- Complaint closed by NDPL staff



# Automated Meter Reading



- For large consumers
- Choose the date
- View for the selected date half hourly average consumption, voltage, current, etc.
- View daily electricity consumption graphs



# “SUGAM” Bill Payment Options

- NDPL Consumer Care Centres for payment by Cheque or Cash\*
- 24-hr manned drop boxes at announced NDPL premises with stamped acknowledgement \*
- Credit Card swipe machines at NDPL Counters – Civil Lines, Keshav Puram, Rohini (Sec 15), Pitampura & Kirti Nagar
- Internet payment for ICICI, Citibank & HDFC account holders
- Online Payment through [billjunction.com](http://billjunction.com) (ICICI) & [billdesk.com](http://billdesk.com)

(\* - *launched earlier*)



# “SUGAM” Bill Payment Options

- Bank counters Cheque Payment at UTI & Bank of Punjab Branches in NCR of Delhi and their ATMs
- Skypak Drop Boxes in NCR of Delhi\*
- ECS & Direct Debit payment option through Consumer accounts in Banks having tie-up with Bill Desk
- Payment through retail outlets in local neighbourhoods by Easy Bill franchise outlets

\* - *launched earlier*



# Initiatives

- Introducing SPOT BILLING in one District as a Pilot Project.
- Appointed Consultants for Reviewing the Revenue Cycle Management.
- Introduction of Performance based Incentive Schemes.
- Replacement of all old conventional meters with state of art electro mechanical / electronic meters.
- Introducing Automatic meter reading system for bulk consumers to start with and to be extended gradually to all LT CT operated meters.



# Concerns – Though few, but do matter

Issues	Concerns
<b>APDRP Funding</b>	✓ APDRP fund not yet received
<b>Land Availability</b>	✓ No land available for augmentation ✓ Problem in cable laying and ROW
<b>Enforcement</b>	✓ Problems in FIR Filing ✓ No state legislation enacted



# Future Challenges

- Restrict AT & C losses
- Rationalization of tariff
- Customer Excellence
- Zero or Minimum Load shedding in Peak Demand Time
- Forecasting Demand as per ABT



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Thank You

