

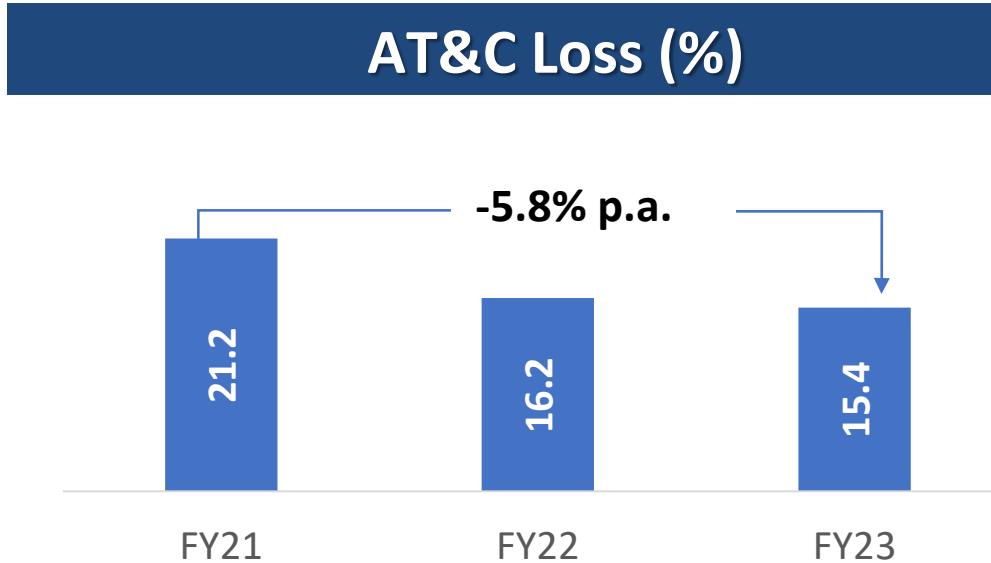


# DISCOM ISSUES AND REVIVAL

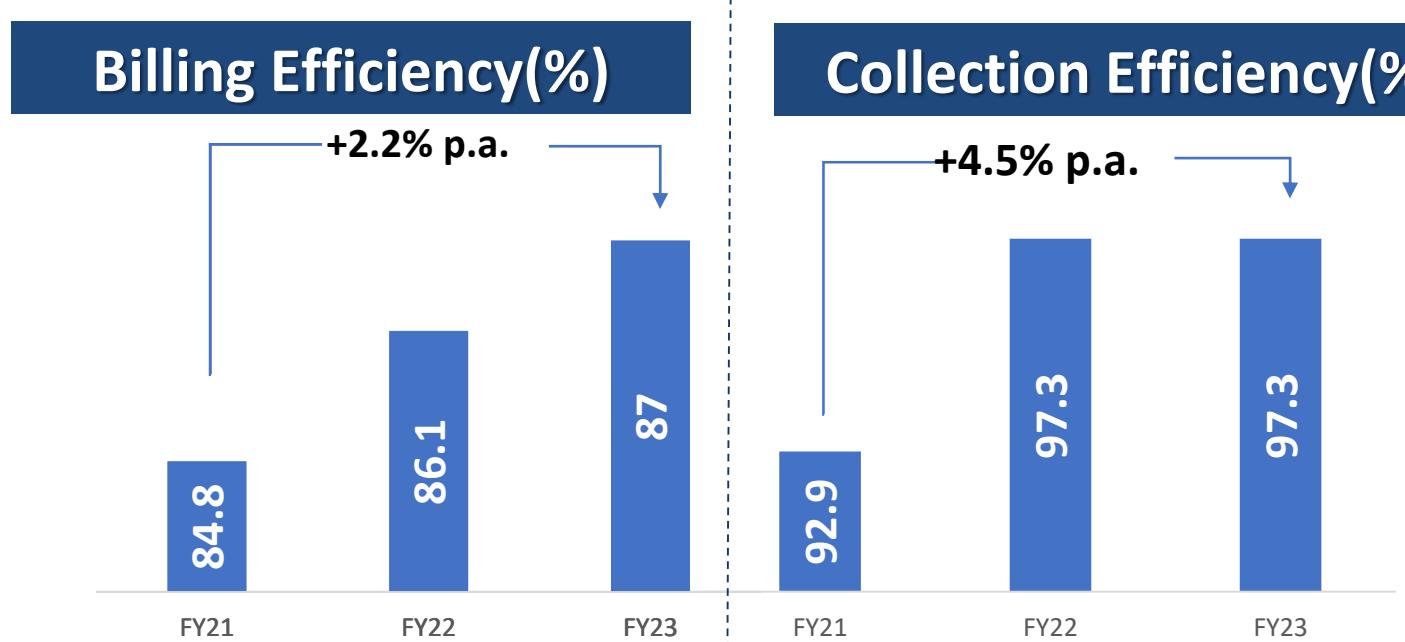
DUM 2024

Lighting up Lives!

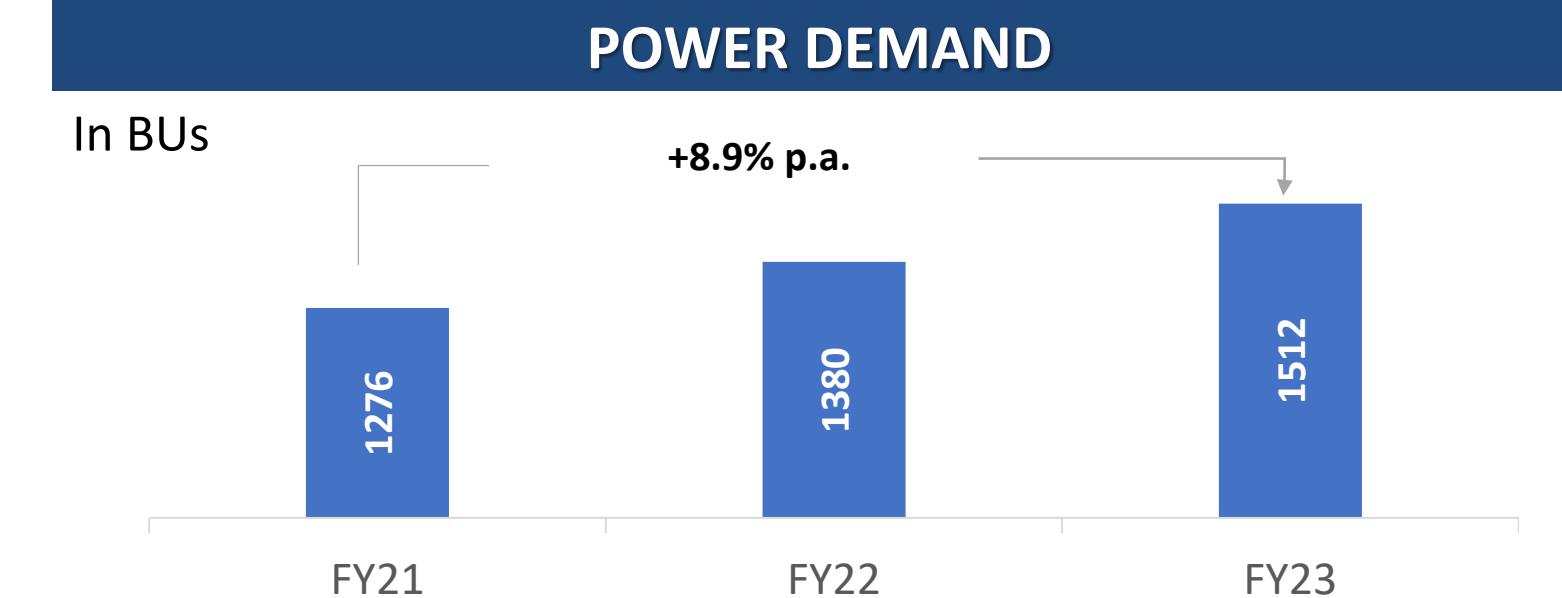
# INDIA'S POWER DISTRIBUTION OVERVIEW



AT&C improvement was driven by an increase in both billing efficiency and collection efficiency

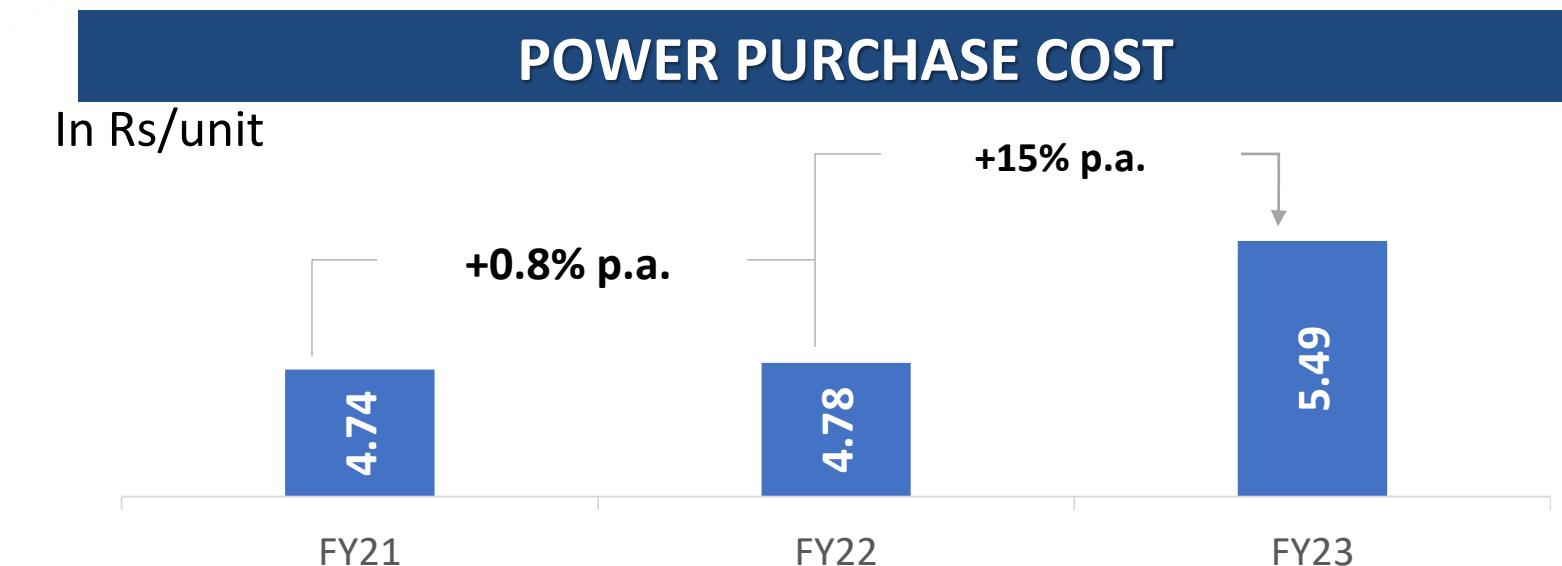


**Billing Efficiency** increased by **1%** as **AT&C** improved further to **15.4%**, reaching closer to the national goal of 12-15%



This unprecedented growth posed challenges for

- **GenCos** (struggled to ramp up production) &
- **Discoms** (faced difficulties in fulfilling demand with contracted capacities)

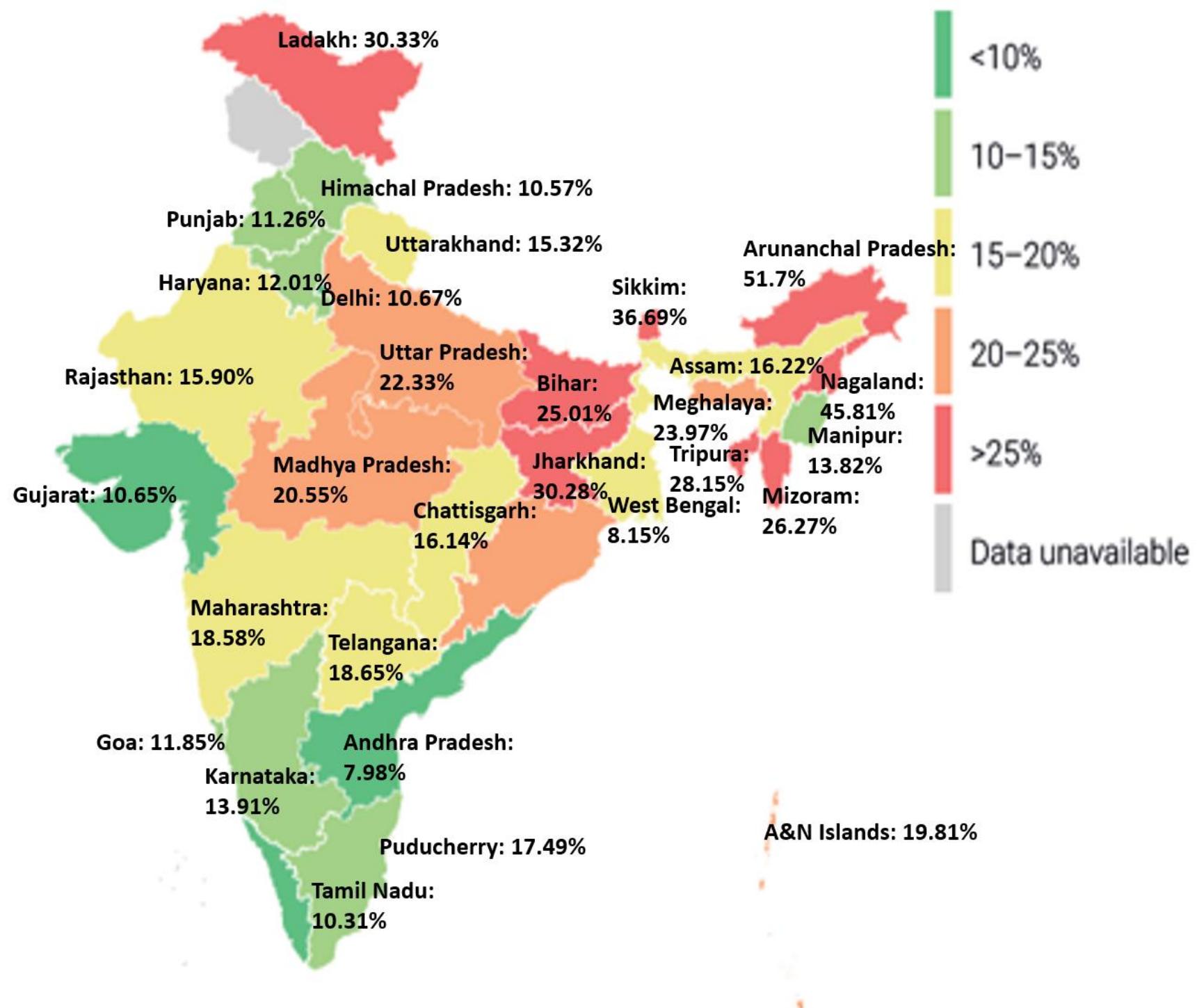


Increase by **Rs 0.71/unit** was **driven by**:

- Increase in imported coal volume
- Rise in prices of imported coal
- Surge in power exchange prices

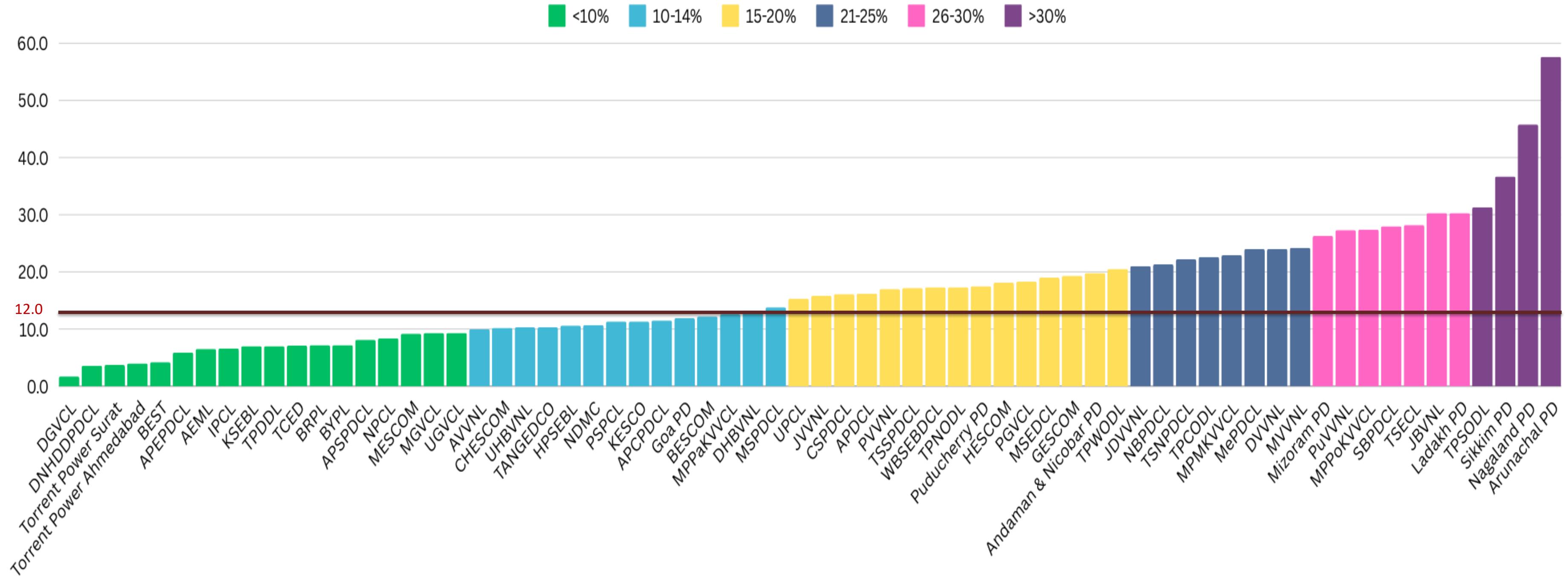
# INDIA'S AT&C LOSSES : State-wise

**State-wise AT&C losses for FY23**  
Percent



- **Improvement in AT&C Losses:** 39 DISCOMs and 4 state power departments showed progress in reducing Aggregate Technical and Commercial (AT&C) losses during FY23
- **Top Contributing States:** 51% of national AT&C losses were from 5 states: Uttar Pradesh, Maharashtra, Madhya Pradesh, Rajasthan, and Telangana
- **Government Initiatives for Loss Reduction:**
  - Programs like RDSS focus on key measures such as prepaid smart metering, separation of agricultural feeders, and improved energy accounting
  - Adoption of best practices, including CRM tools, digital payments, analytics-based collection strategies, and rural awareness campaigns, will further help in reducing AT&C losses

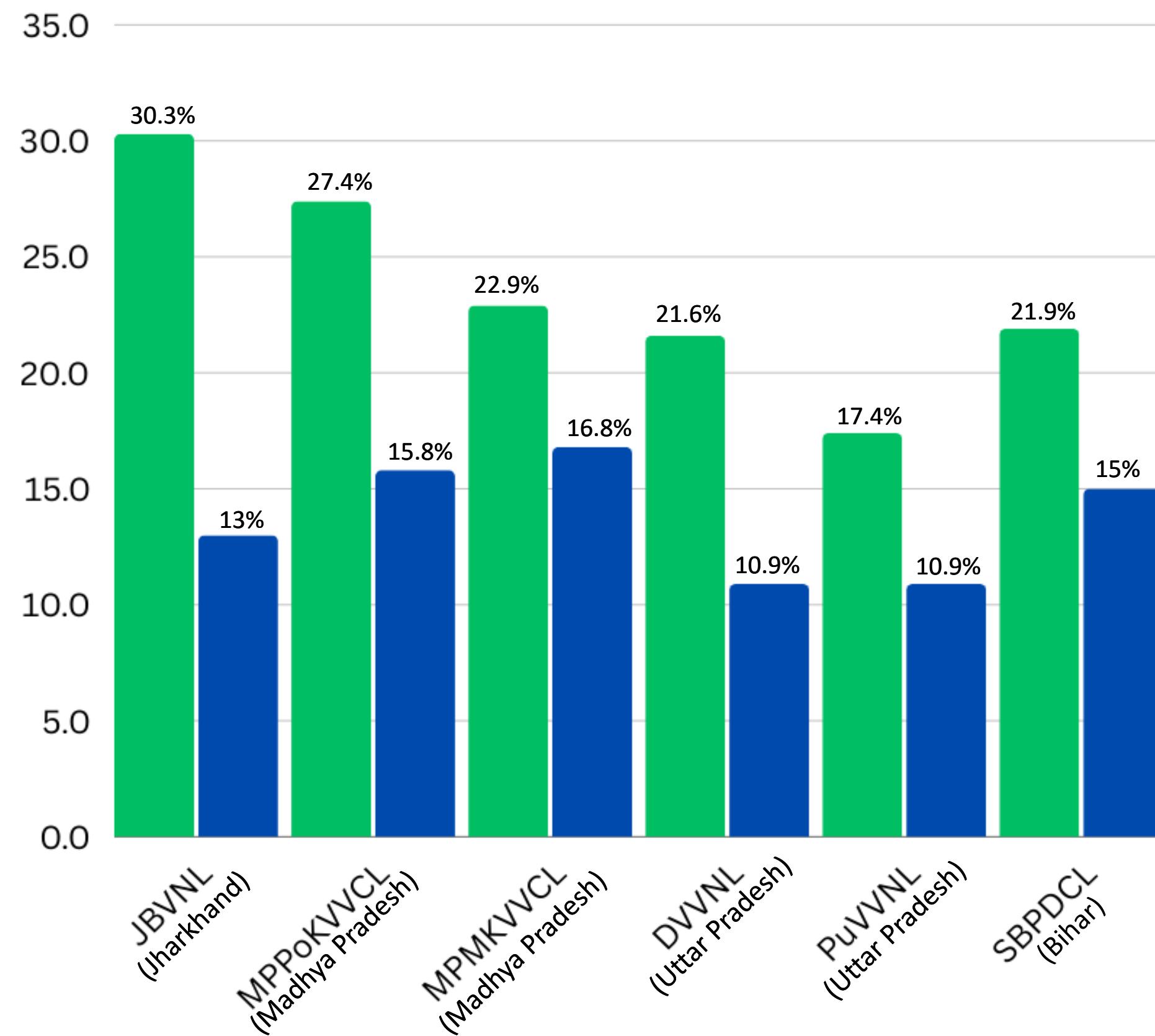
# AT&C LOSSES : Utility-wise



*More than 50% of the Discoms are still above 12% AT&C Loss ; Need to fasten the speed of AT&C loss reduction for these Discoms*

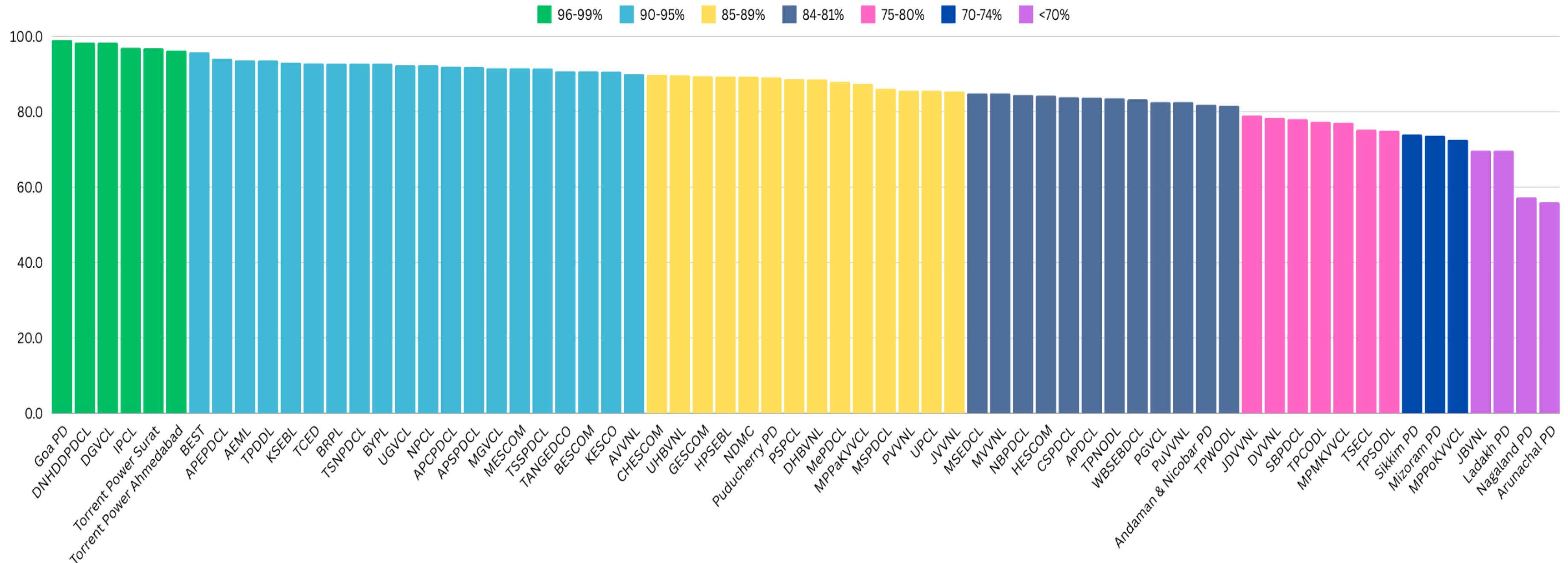
## DISTRIBUTION LOSSES (ACTUAL Vs SERC Target)

Actual      SERC Target



*In FY23, 31 utilities reported distribution losses that exceeded the billing efficiency targets set by their respective State Electricity Regulatory Commissions (SERCs)*

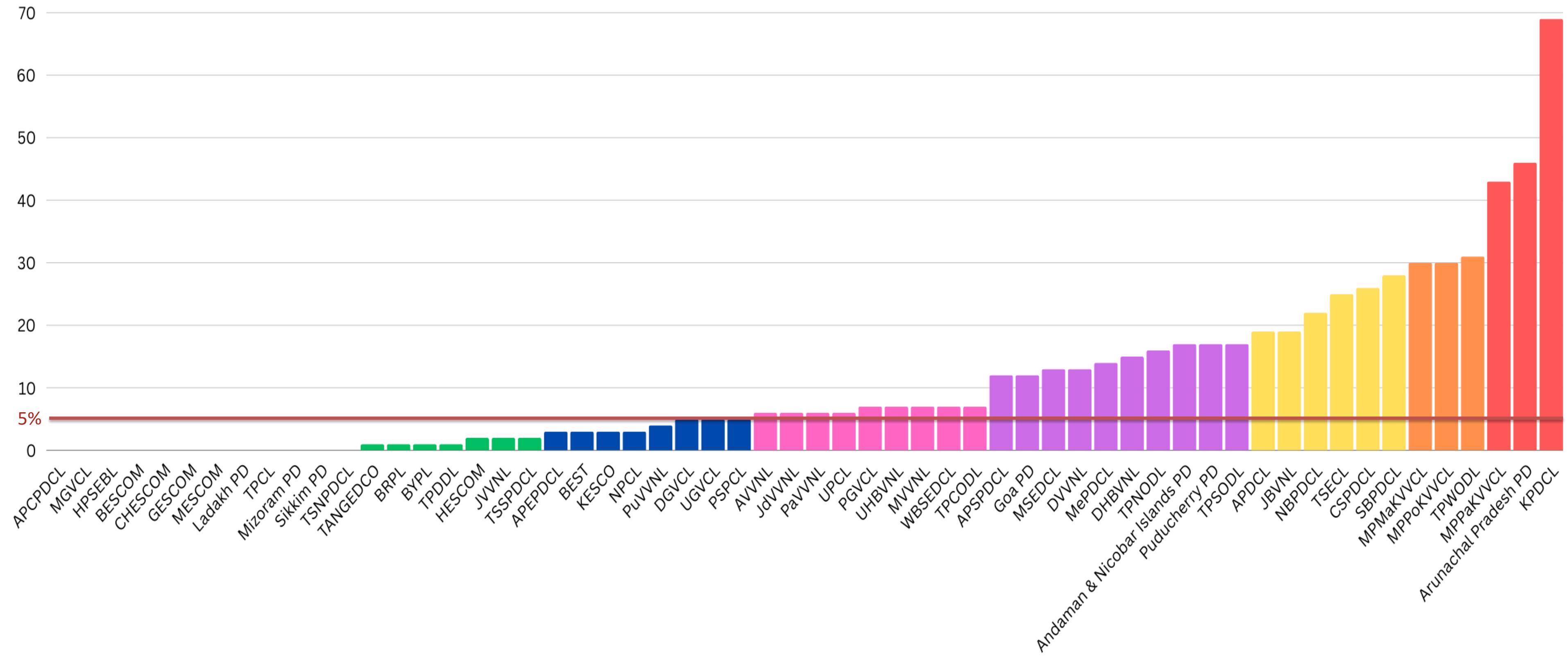
# BILLING EFFICIENCY



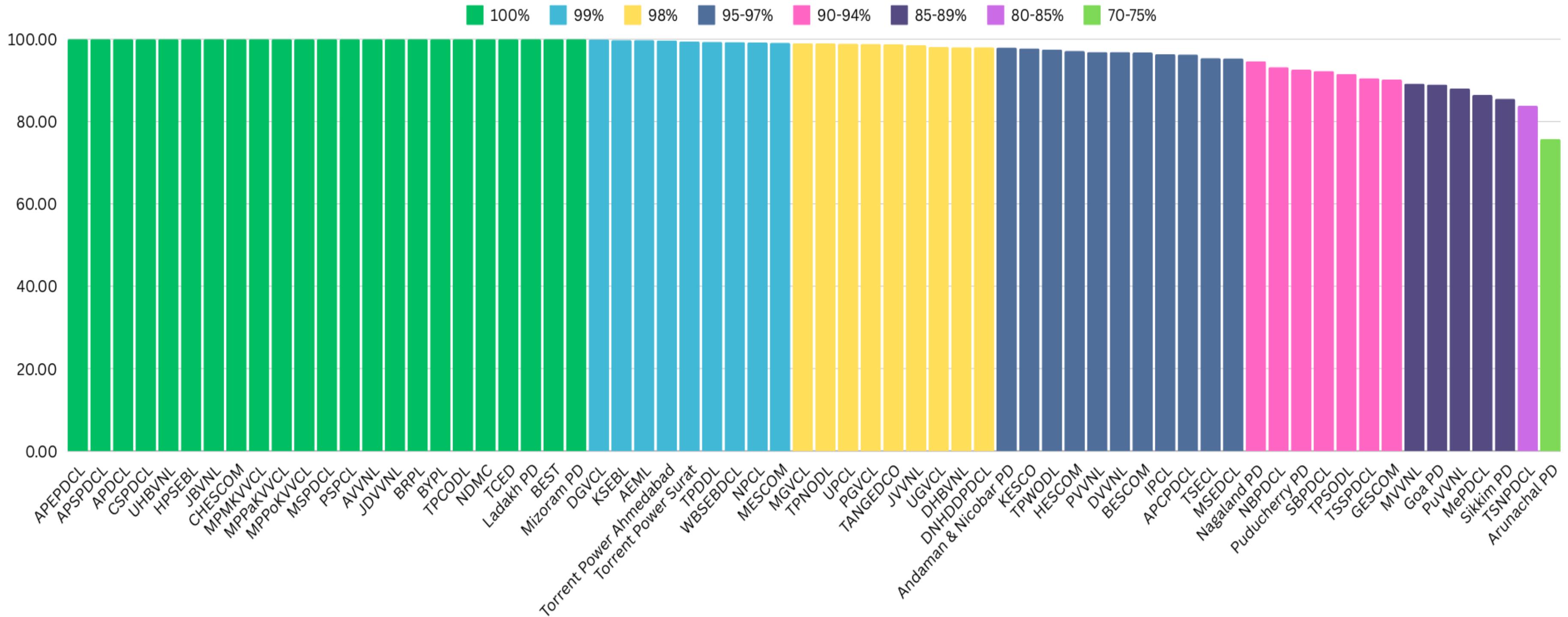
*Billing Efficiency remains the key concern for reduction of AT&C Losses*

# PROVISIONAL BILLING

0    1-2    3-5    6-7    12-17    18-28    30-32    >40



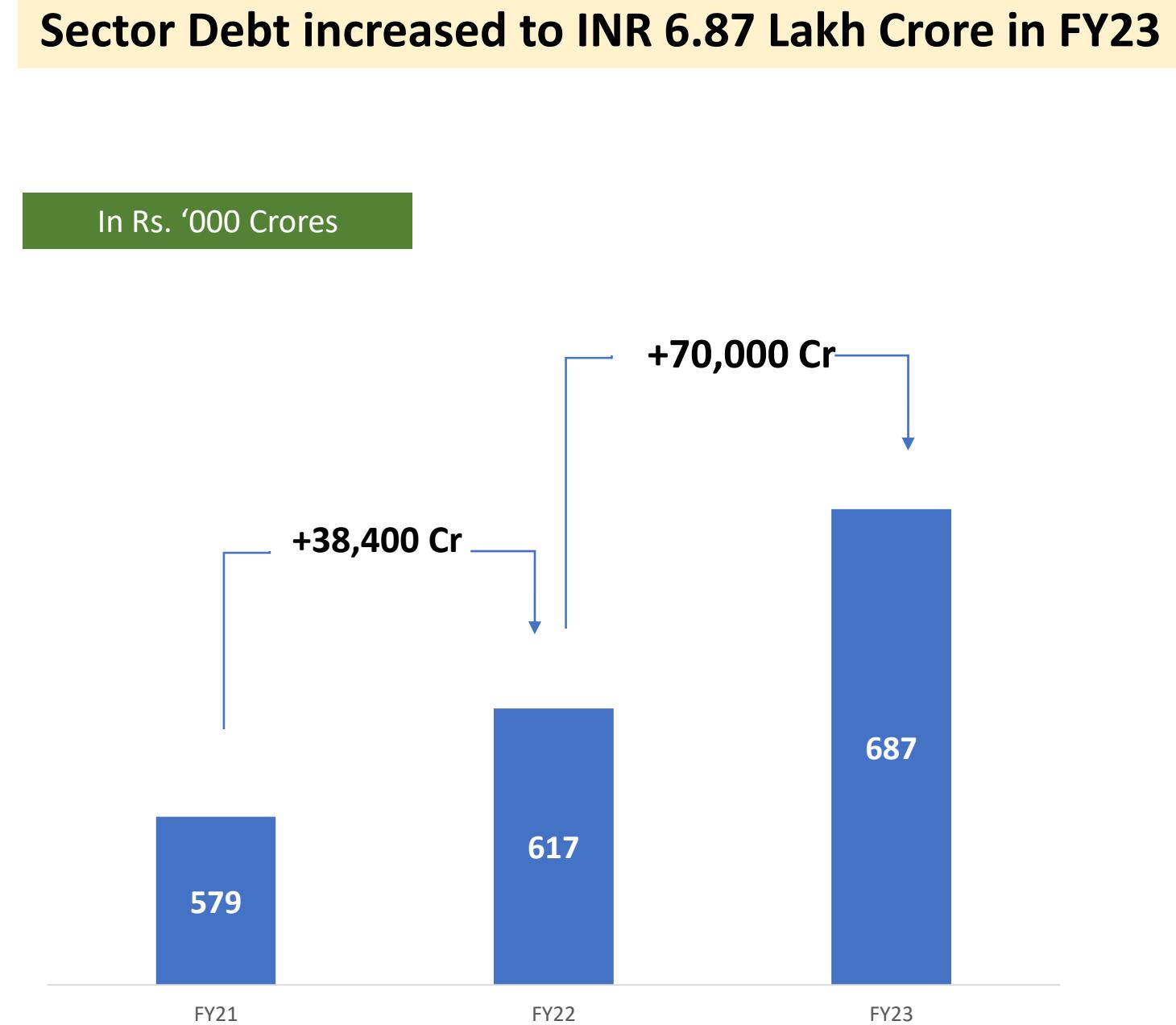
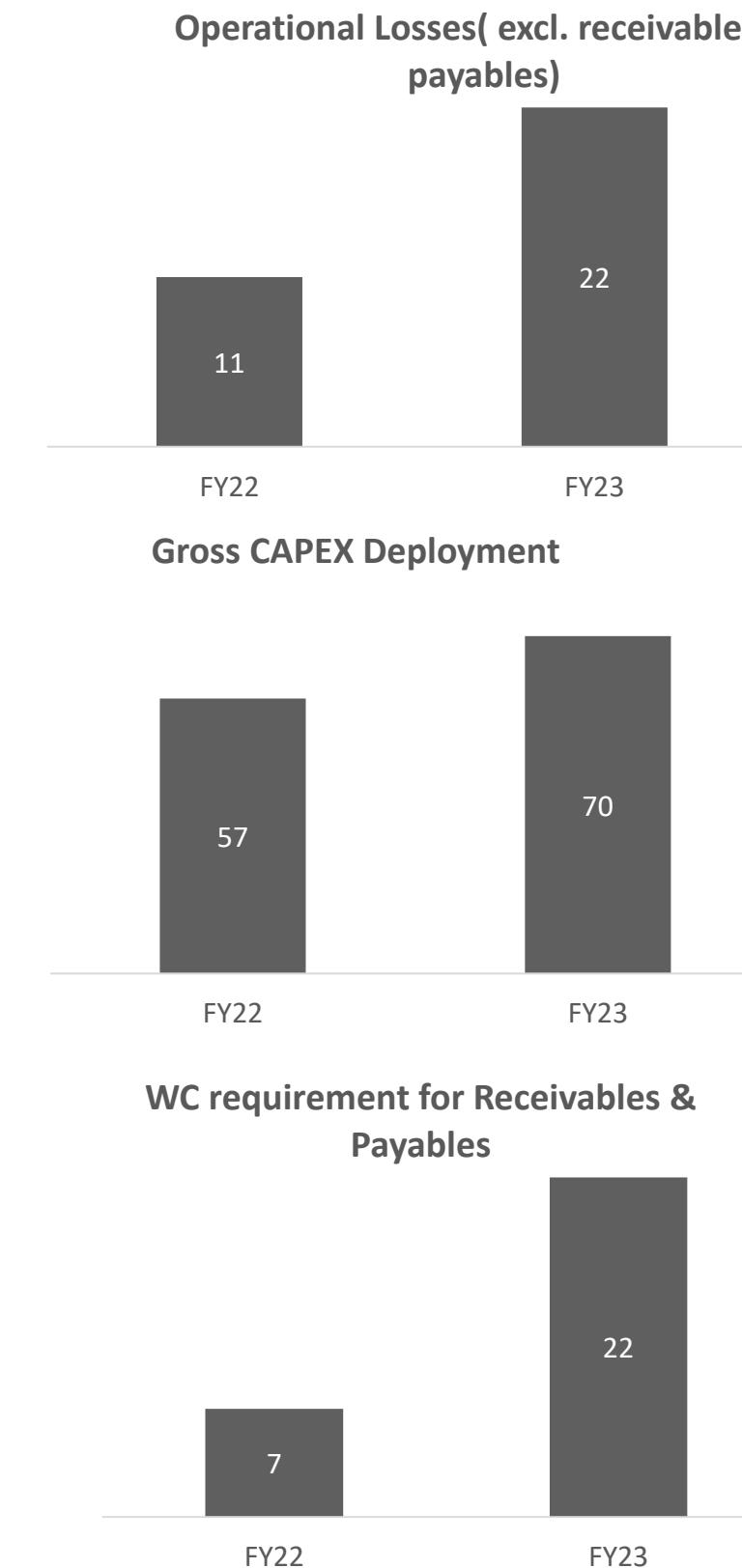
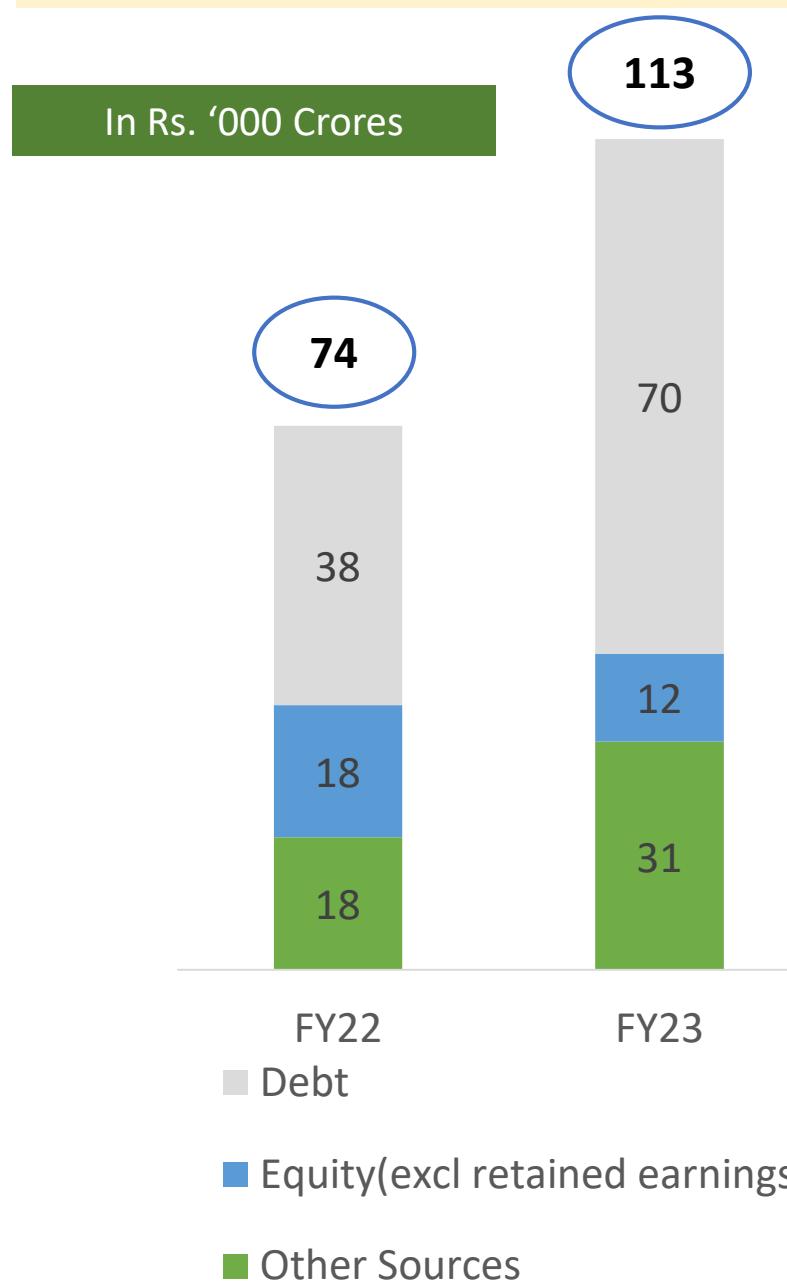
# COLLECTION EFFICIENCY



*Collection Efficiency shows an overall improvement with limited Discoms trailing behind*

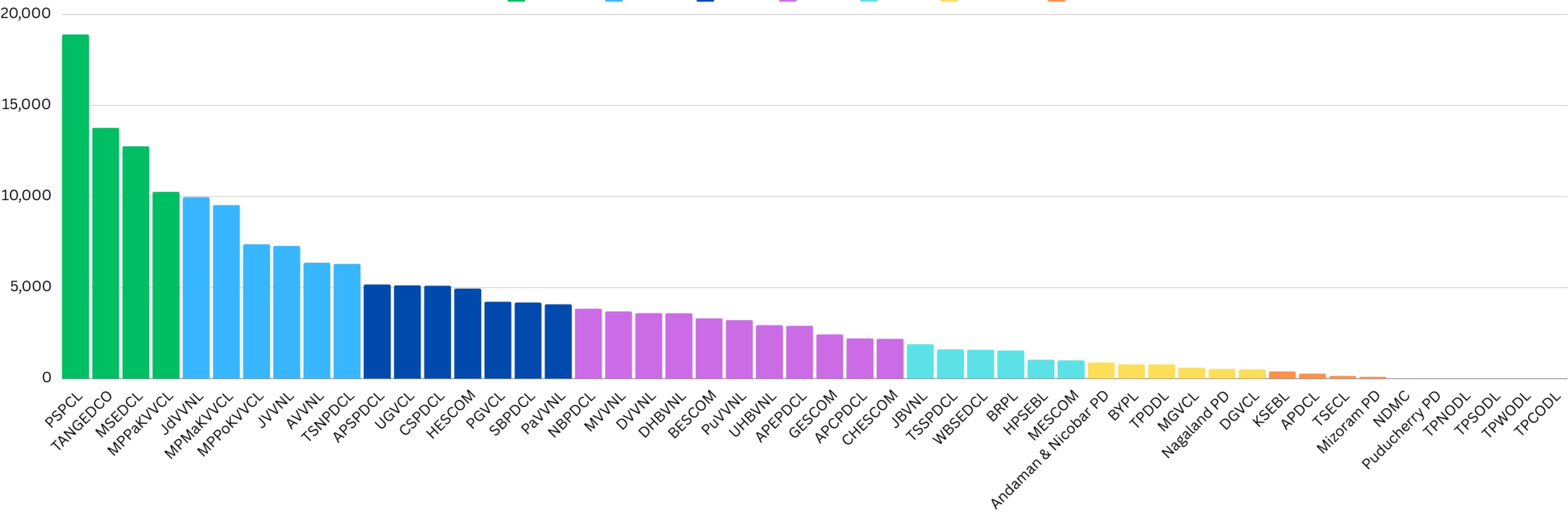
# DISCOMs DEBT OVERVIEW

**Total debt rose by INR 70,000 Crore in FY 23 for funding of Capex, working capital requirement and operational losses**



# TARIFF SUBSIDY RECEIVED - FY23

■ 19k-10k ■ 10k-6k ■ 6k-4k ■ 4k-2k ■ 2k-1k ■ 900-500 ■ 500-0

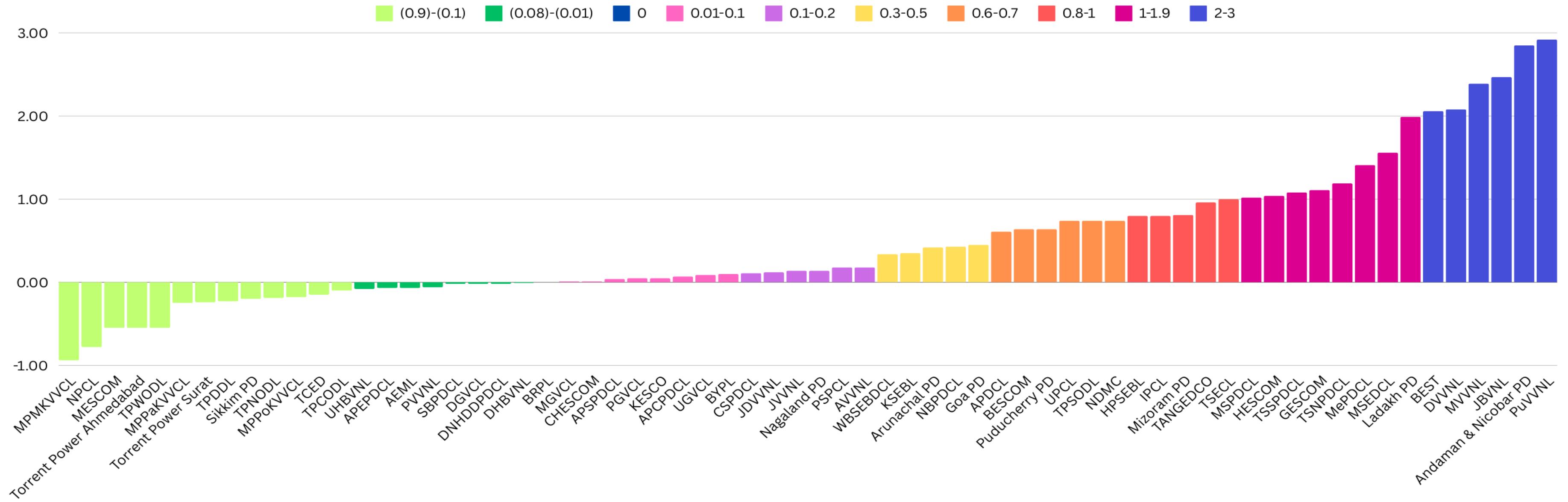


*Approx Rs. 1.7 Lakh Crore was the subsidy support to all State Owned Discoms*

*~ 18% of revenue required by Discoms; in some states support is 40% to 50% of Discom expenses*

## ACS-ARR GAP (with subsidy)

In Rs./kWh



*Absence of Cost Reflective Tariff as well as operational and commercial inefficiencies continue to remain a major concern*

# TARIFF SUBSIDY - FY23 OVERVIEW

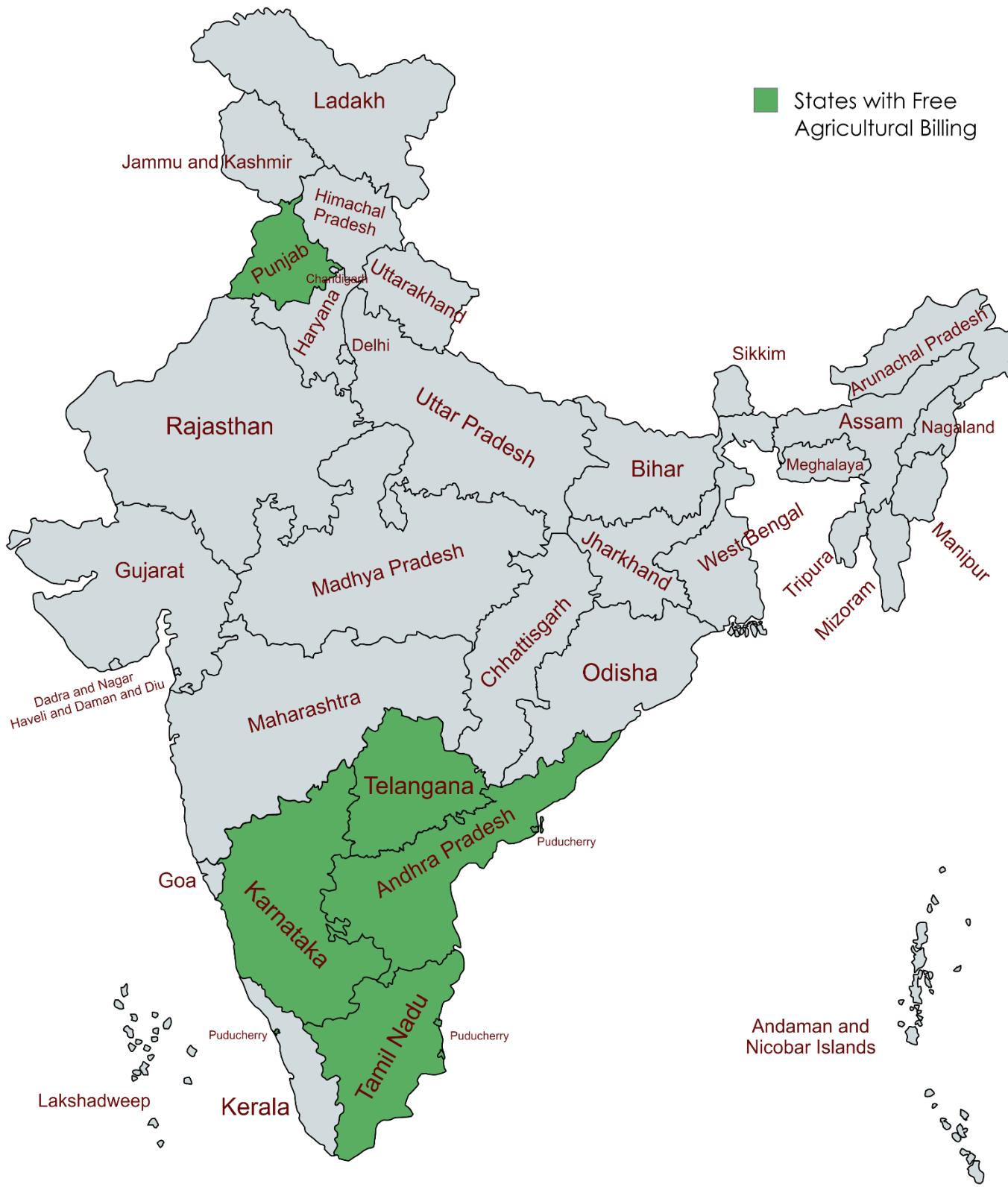


- *Rs. 43,600 Crores of Annual Losses were taken over by State Govt. in FY 23 which is double the amount taken in FY 22;*
- *Loss-takeover subsidies were provided by states such as Tamil Nadu, Telangana, Andhra Pradesh, Bihar, Rajasthan, and Uttar Pradesh.*



- *A total of Rs. 1.4 Lakh Crores was provided to DISCOMs in 2022–23 by central and state agencies*
- *Grants were part of RDSS, IPDS , DDUGJY and other state schemes*

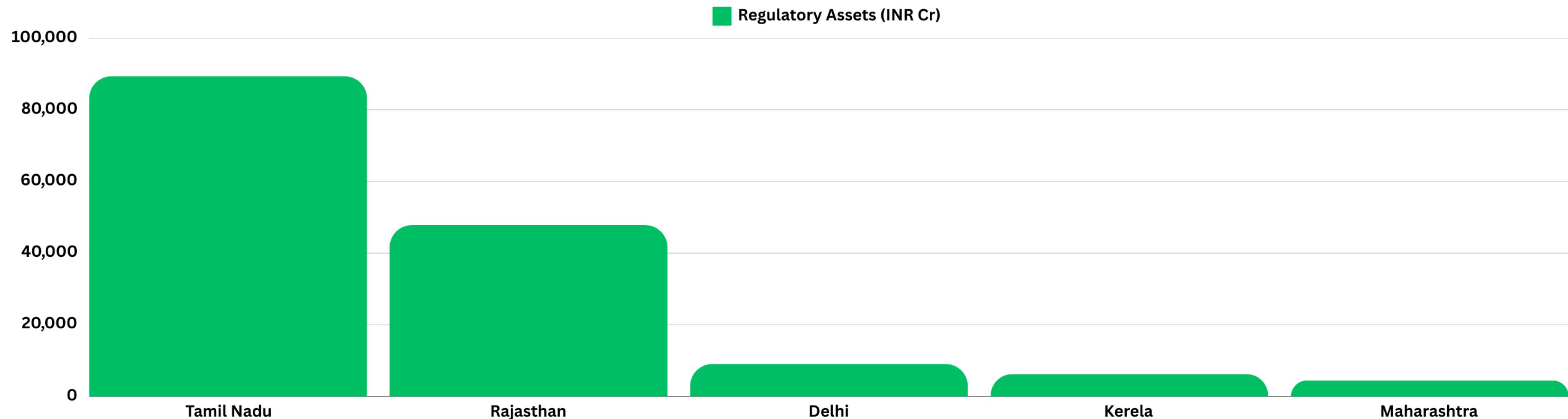
# FREE BILLING (AGRICULTURAL)



*Few States continue with free power for agricultural consumers*

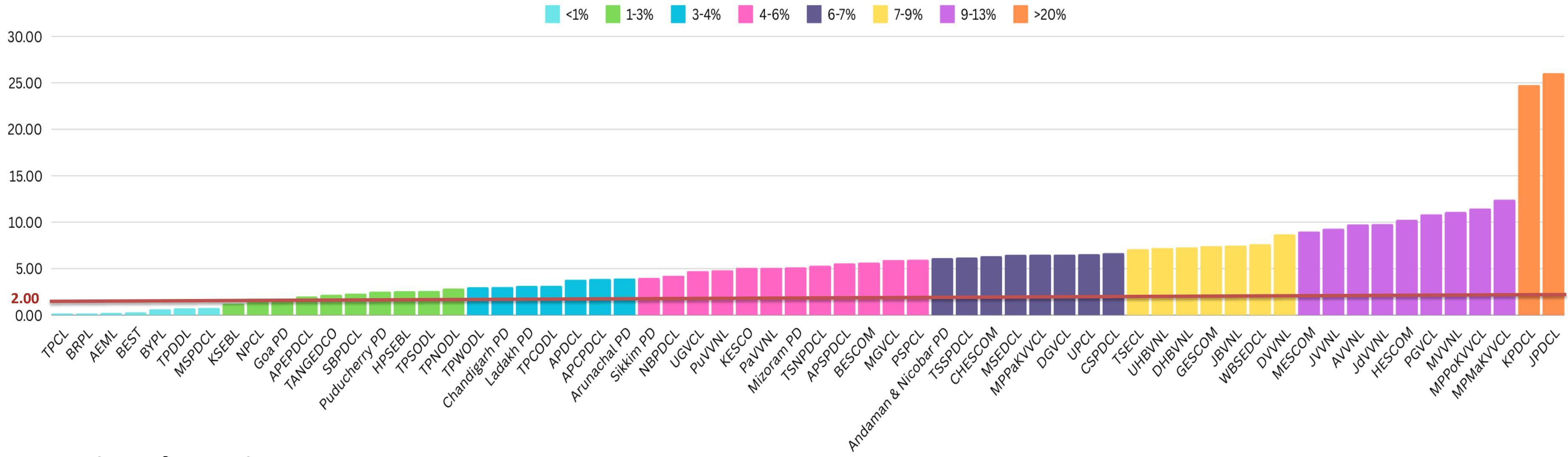
*Increases burden on the exchequer !*

# REGULATORY ASSETS



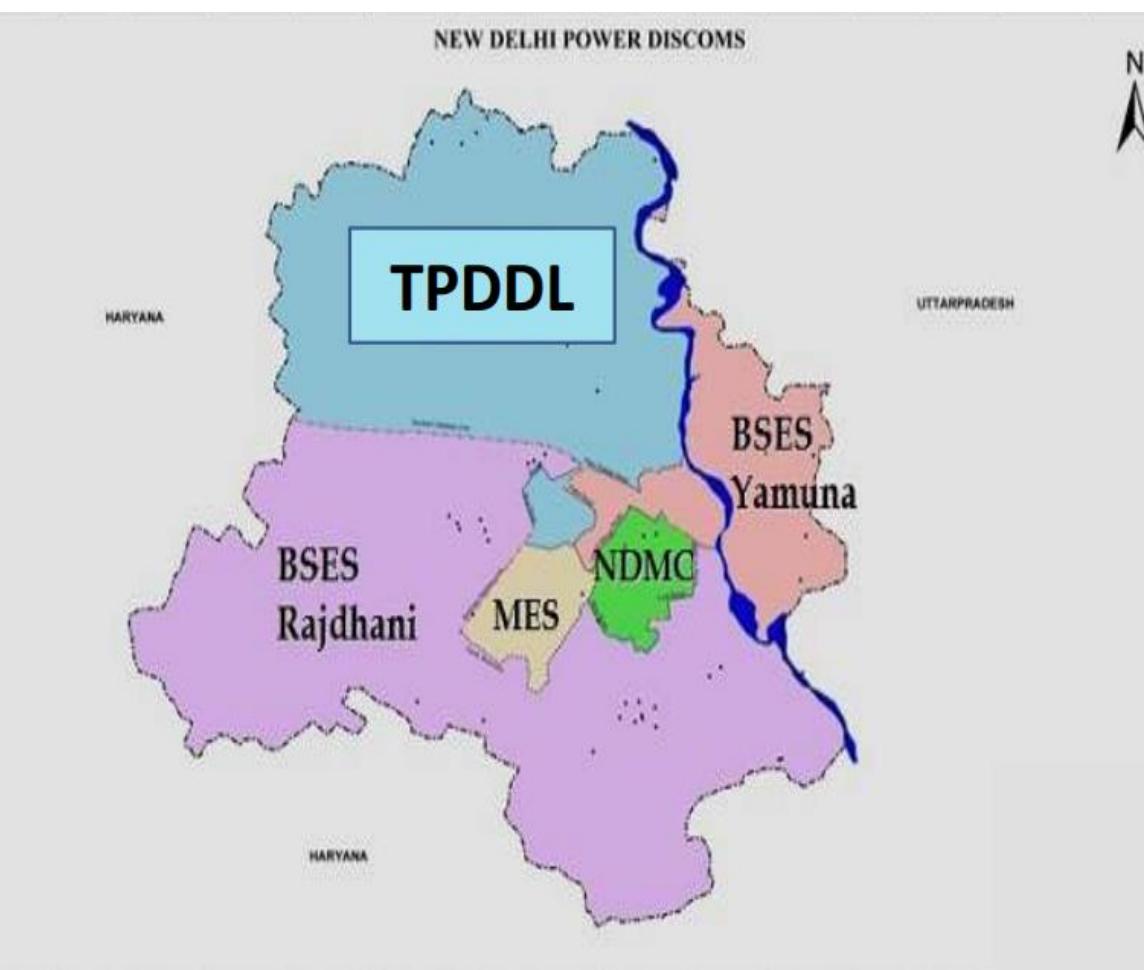
- Substantial regulatory assets persisted in *Tamil Nadu, Rajasthan, Kerala and Delhi* totalling **INR 152,500 Crore** at the end of FY23. *Only Maharashtra has liquidated regulatory assets, reducing them from INR 12,000 Crore in FY21 to INR 4,000 Crore in FY23*
- LPS Rules drove **liquidation of INR 48,000 Crore in FY23**

# OPERATIONAL INEFFICIENCIES - DT FAILURE RATE



- National Maximum:** 26.07%
- National Average:** 5.81%
- National Minimum:** 0.91%
- Leading DISCOMs in DT Failure Rate (*less than 1%* in FY23) are *TPCL, BRPL, AEMPL, BEST, BYPL, TPDDL & MSPDCL*

# Transformation of Discoms



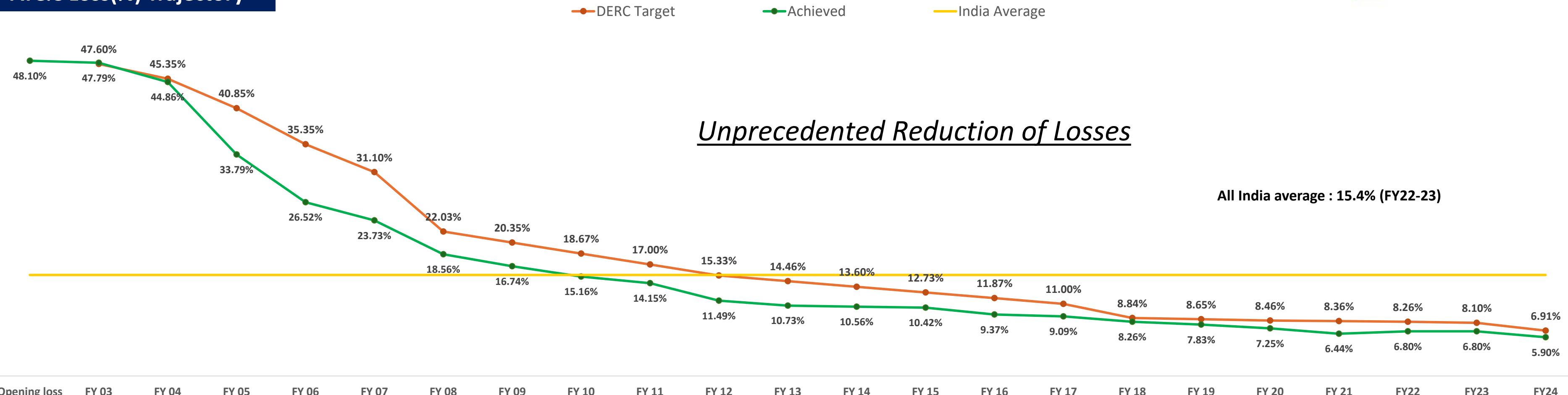
Joint Venture of Tata Power and Govt. of Delhi in the ratio 51:49

Privatized on 1<sup>st</sup> July 2002

Parameter	Unit	July 2002	March 2024
<b><u>OPERATIONAL PERFORMANCE</u></b>			
AT&C Loss	%	53.1	5.9
System Reliability – ASAI Availability Index	%	70	99.9
Transformer Failure Rate	%	11	0.68
Peak Load served	MW	930	2218
Length of Network	Ckt km	6750	14108
Street Light Functionality	%	40	99.6
Smart Meters Installed	Lakh	0	4.33
<b><u>CONSUMER RELATED PERFORMANCE</u></b>			
Number of Customers	Lakhs	6.5	20.55
New Connection Energisation Time	Days	51.8	2.6
Meter Replacement Time	Days	25	3
Mean Time to Repair Faults	Hours	11	0.9
Consumer Satisfaction Index	%	-	97

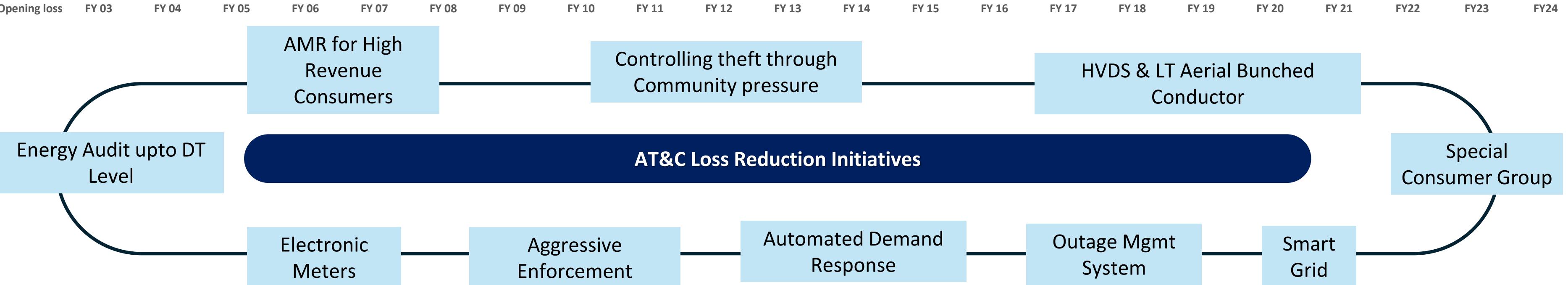
# TATA POWER-DDL AT&C LOSS REDUCTION

## AT&C Loss(%) Trajectory

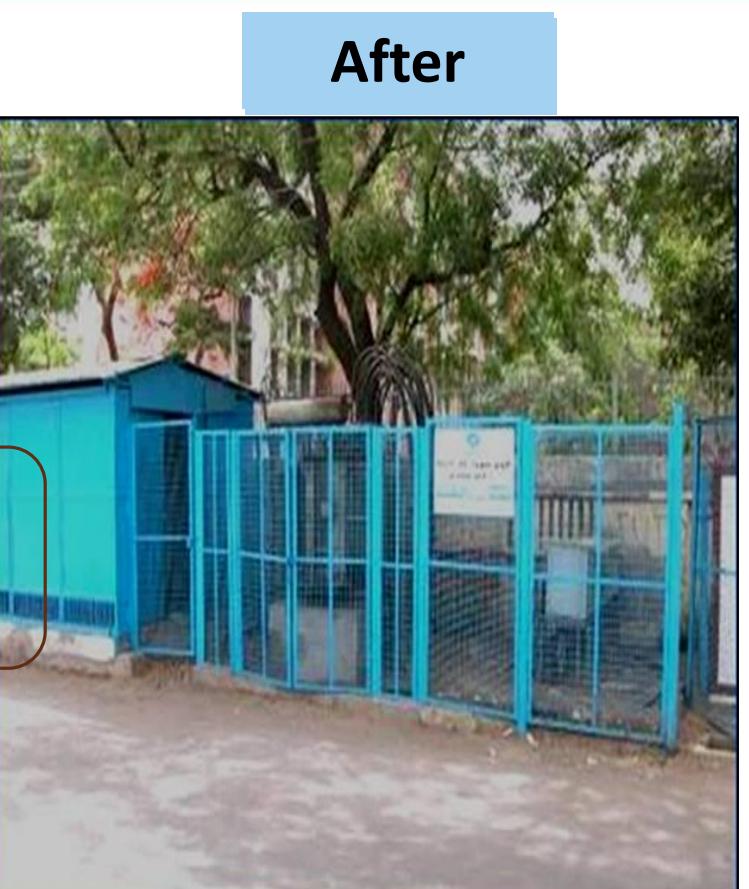
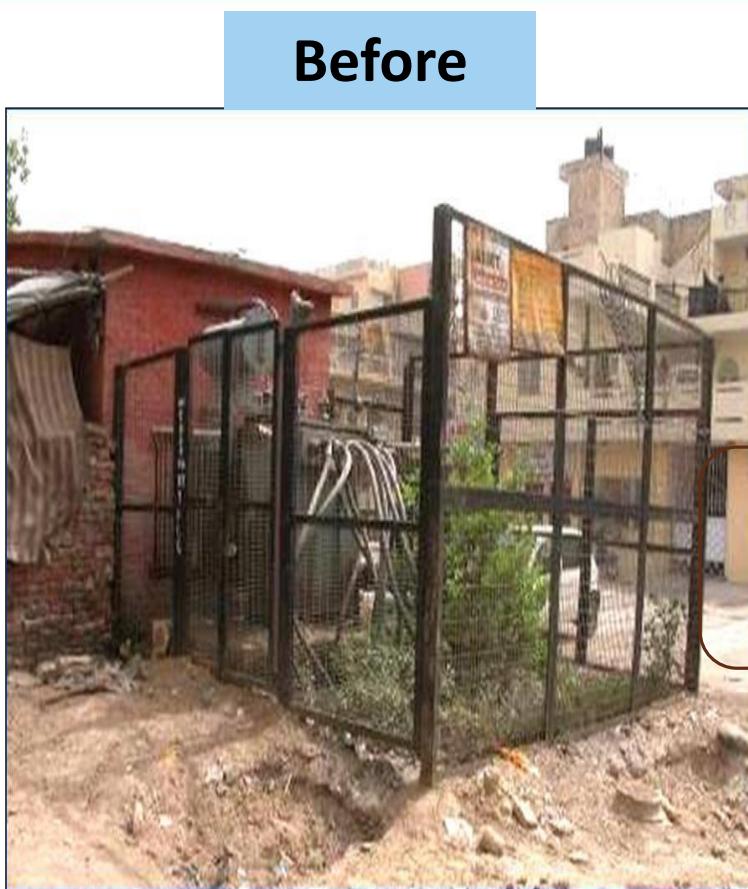


Unprecedented Reduction of Losses

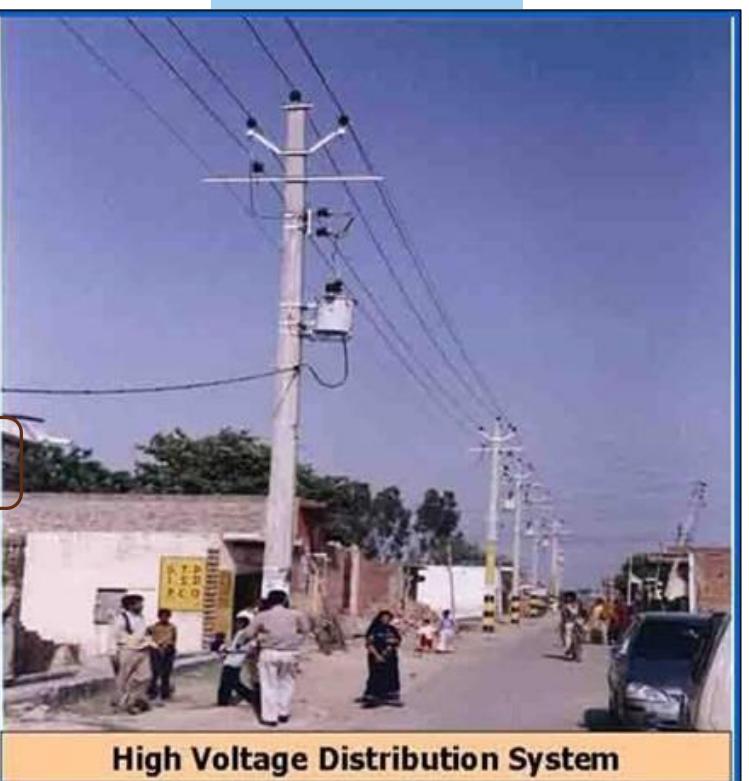
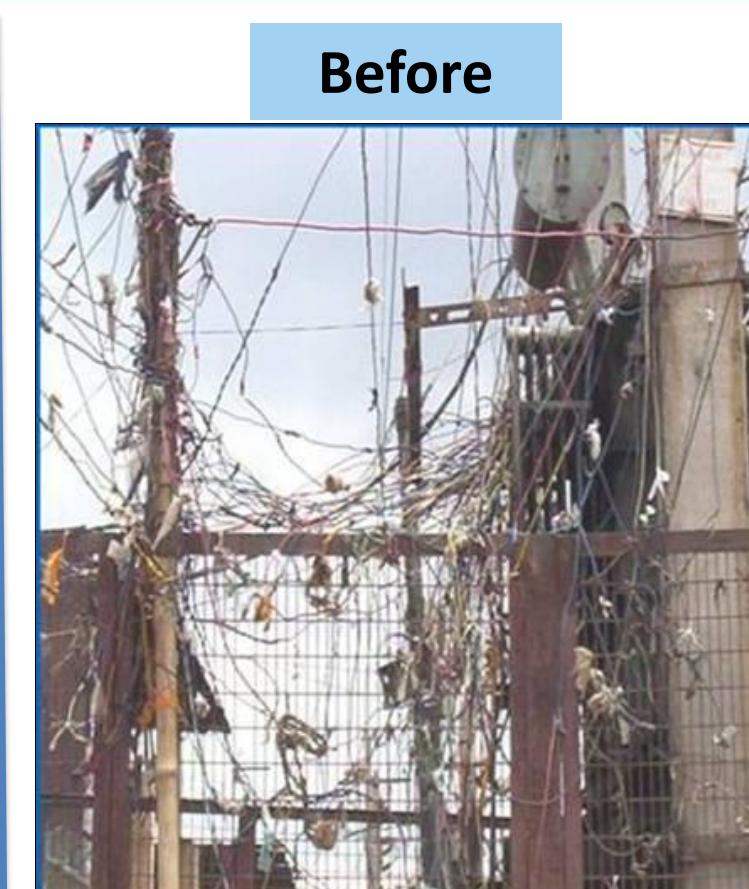
All India average : 15.4% (FY22-23)



## TATA POWER-DDL (TURNAROUND)



Outdoor  
Transformer



Network



Grid  
Station



Ring Main  
Unit



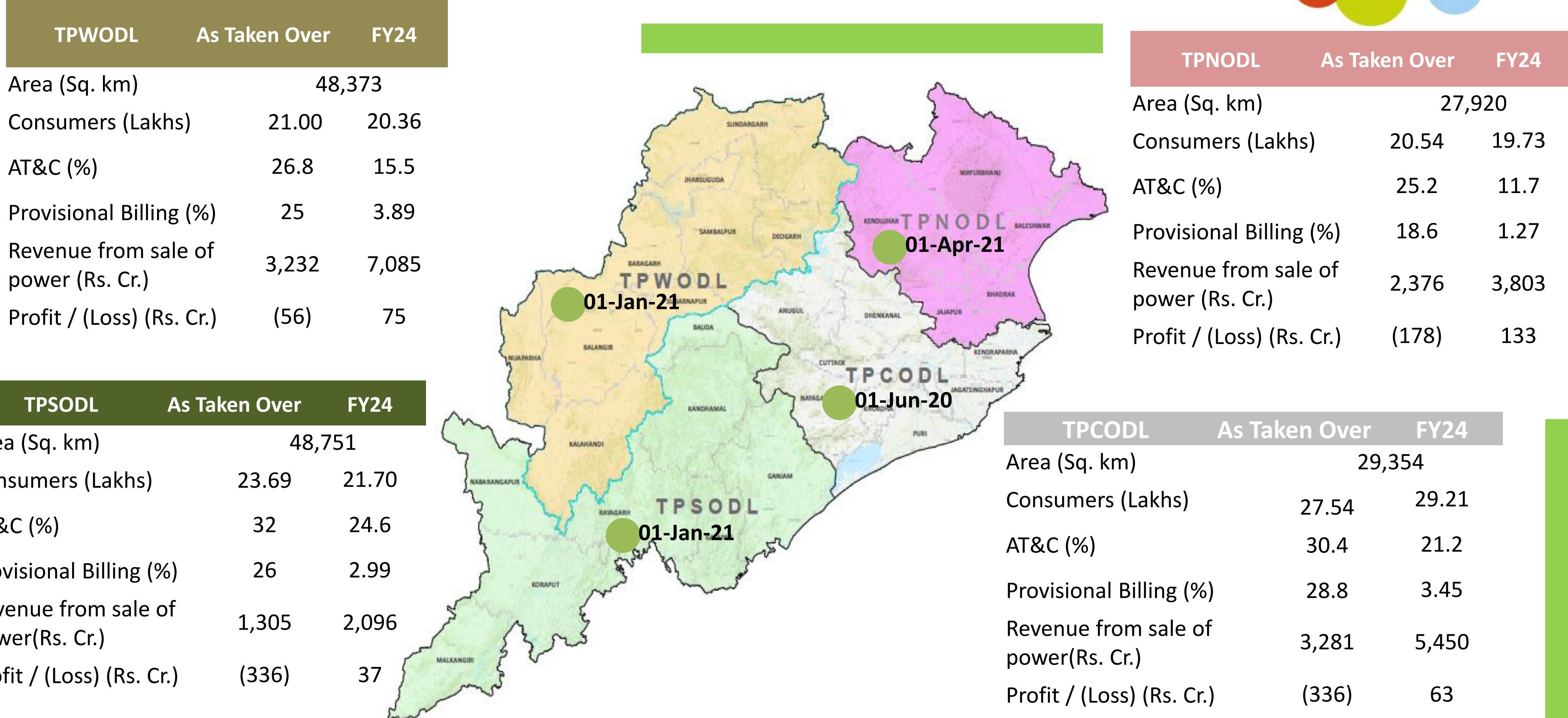
Before

After

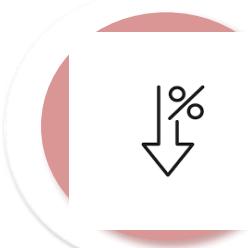
Before

After

# ODISHA DISCOMS – OVERVIEW (1/2)



*Turnaround of loss making discoms to profitable entities*



### Loss Reduction

Reduced AT&C Loss from 29.45% in FY21 to 17.7% in FY24



### Provisional Billing Reduction

Provisional Billing reduced from 39.6% during takeover to 6.5% upto FY24



### Meter Replacement

35 Lakhs Meters Replaced



### Smart Meter Installation

7 Lakhs Smart Meter installed in last one and half year



### Past Arrears Collection

₹ 1762 Cr. past arrears collected upto FY24 and paid to Gridco, exceeding initial 5 Years commitment of ₹ 1000 Cr.

*3 Discoms awarded A+ Rating in 12th Annual Integrated Rating*

# PRE AND POST TAKEOVER – ODISHA DISCOMS

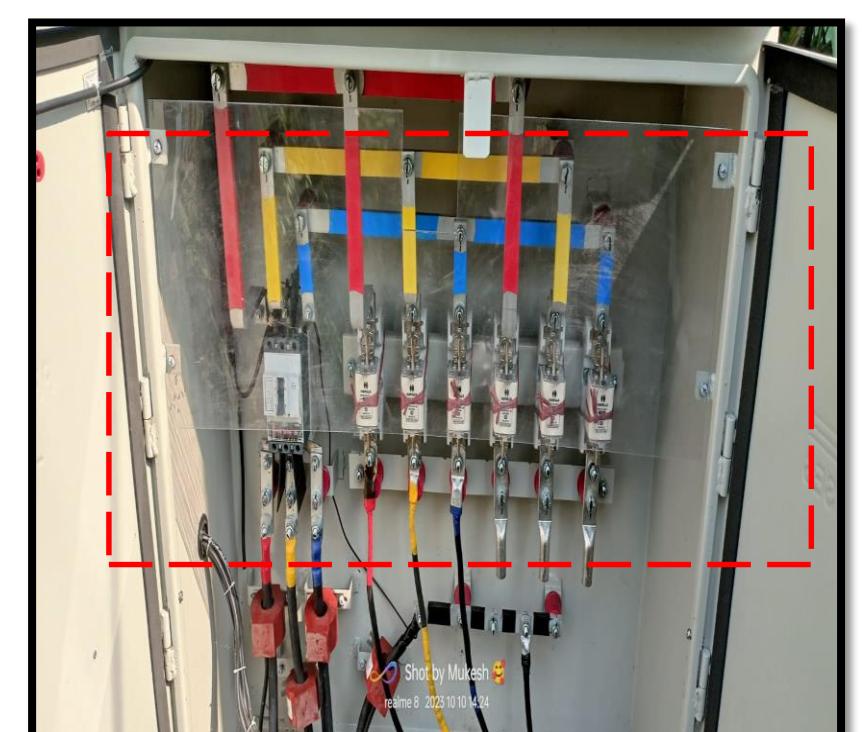




Replacement of old non-communicable CR panels with new SCADA compatible panels for remote monitoring and operations by PSSC, at central level.



IDEAL DSS PROJECT



# Way Forward



*Accelerated solarization of agricultural feeders to reduce the subsidy burden and making agricultural consumers self sustainable*



*Developing capacity and capability on data analytics with the help of various technologies like distribution automation, SCADA, GIS and ERP, with focus on increasing penetration of smart meters to reduce losses to single digit ; Metering and Energy Accounting are the key for loss reduction : What gets measured, gets monitored*



*Detailed Network Planning and Power Portfolio Management to dynamically adapt to increasing DER, EV and Renewable energy penetration*



*Introduction of Private Players in Distribution shall usher in healthy competition and drive for efficiency improvement*



*Progressively deregulate large consumers >100kW from Discom Supply and create a competitive market for them*



*Targeted subsidy reduction – Metering of all agricultural consumers needs subsidy ?*

*Subsidy should be only provided to those who require the same rather than a general principle*

# Thank You!

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