

# MANAGING RESOURCES FOR SUSTAINABLE LOSS REDUCTION



## THEME: SUSTAINABILITY OF DISCOMS

### DISTRIBUTION UTILITY MEET

Date: 07-08 November 2019  
Venue: EROS HOTEL, New Delhi

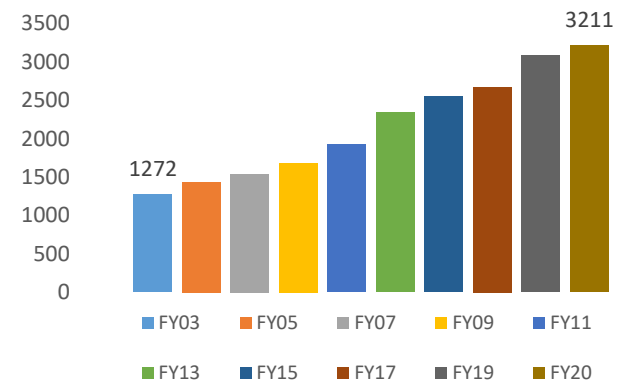
# BRPL Profile

Particular	UoM	Value (FY19)
Customer Base	Lacs	26
Customer Density	#/Sq. km	3330
Divisions	Nos.	22
Peak Demand (July 19)	MW	3211
Energy input	MU	13300 (~43% of Delhi)

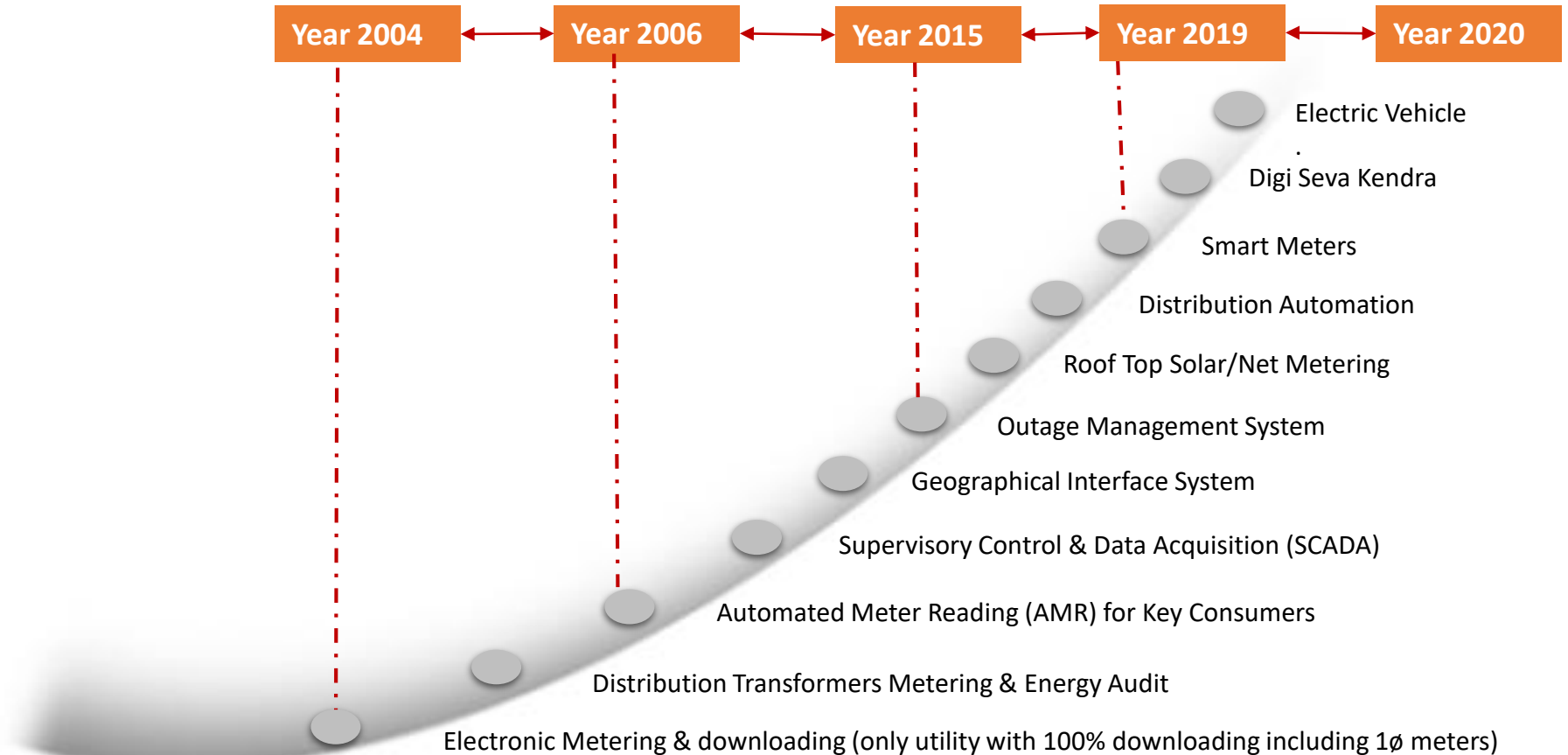
- Distribution of electricity in South & West part of Delhi
- BRPL has successfully met the maximum demand, which has nearly tripled since FY-03



Peak Demand Met (in MW)

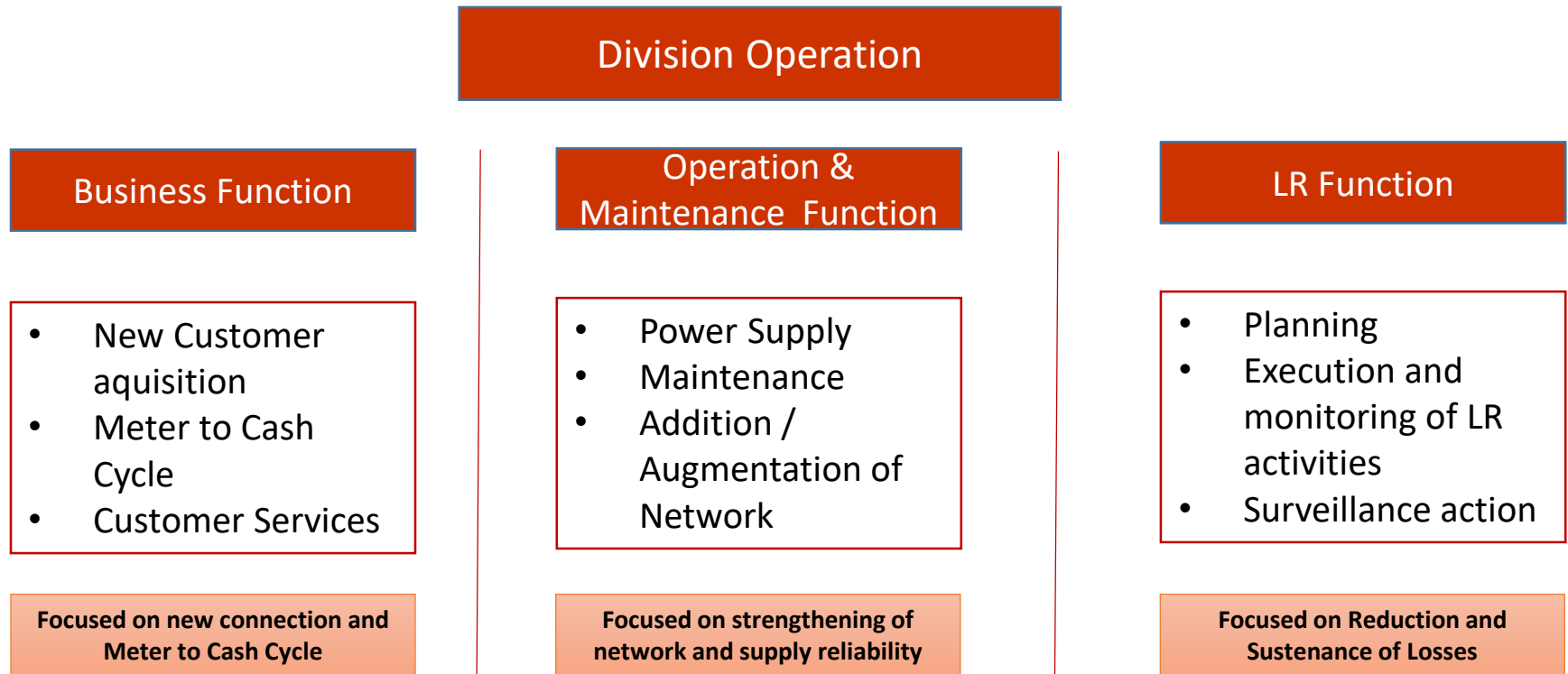


# Transformation Journey



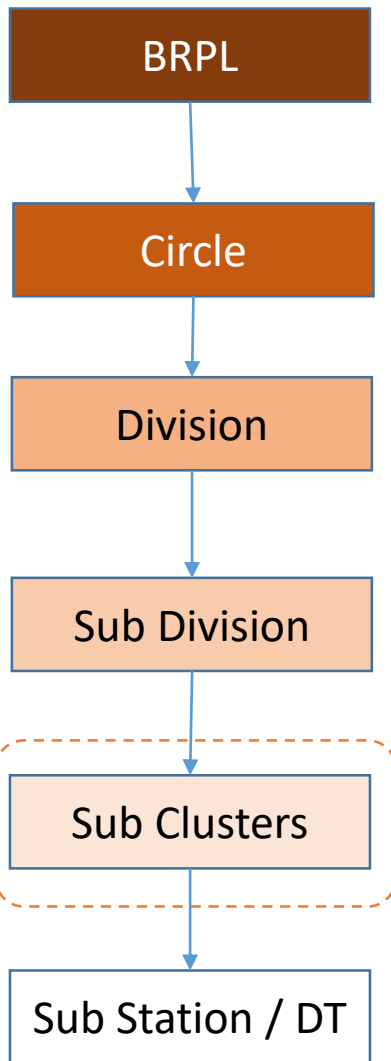
Technology Infusion has been a regular feature at BRPL

# LR Centric Organization Structure



- Upto 2004 - Xen type structure;
- 2004 - Business and O&M separated to bring focus of commercial;
- 2015 - LR Function carved out from Business and O&M for sustainability

# Sub-Clusters level Planning & Monitoring

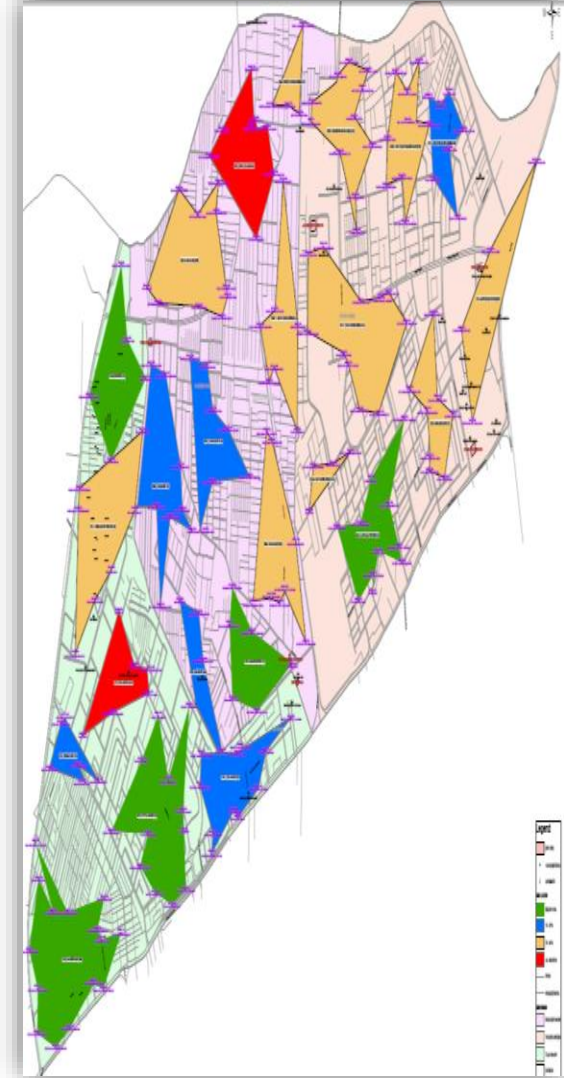


## Sub-Cluster based tracking:

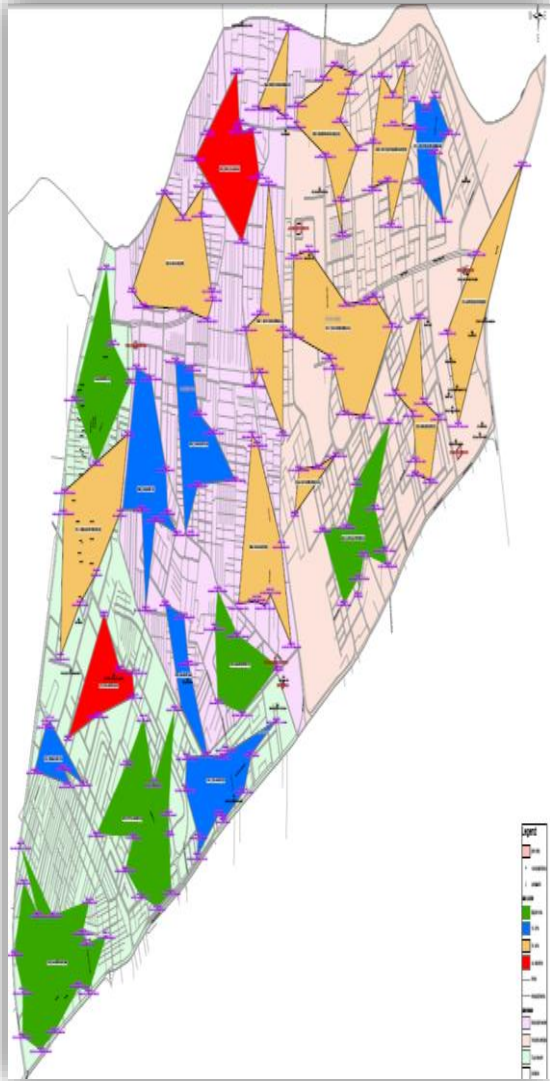
- Geography based DT grouping
- No of DTs in group- 5~10 nos
- Overlapping is minimised

## Why Sub-cluster is required?

- Locality have generally similar issues
- Tagging issues is minimized
- Customised plan for critical sub-clusters – smaller area

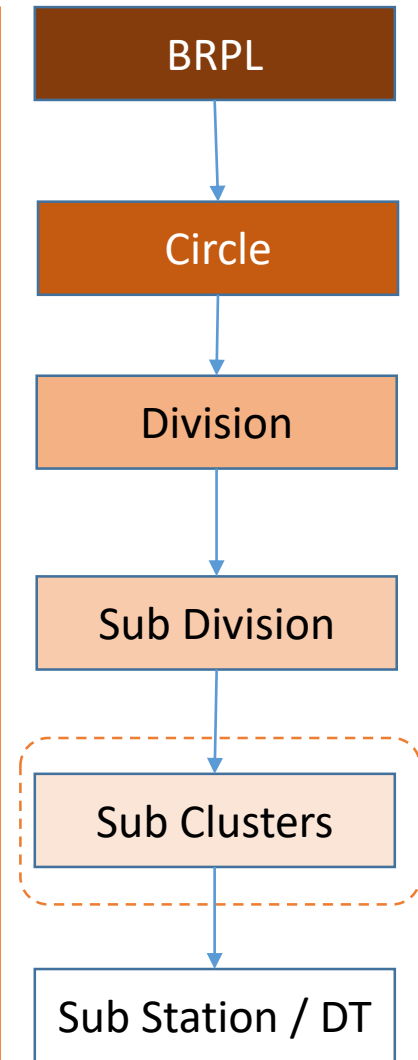


# Sub-Clusters level Planning & Monitoring



## Critical Sub Cluster

- LT T&D loss > 7 %
  - Company loss level
- MU gap > 2 MU
  - Sub Cluster level gap
- LT Energy gap / Customer > 500 units
  - Double of company average
- ROI < 12 months





# LR Initiatives for Sustainability



Meter Relocation  
to outside



Meter  
Replacement



Application of  
Armoured cables



Smart Pole  
Metering



LT Less system for  
AP connections



Separate Street  
light Circuits



Specialized  
Connector



Heat Shrink /  
Armour Cast Tape

# Sustainable Solution for hooking / Katiya

## Bare conductor

- Easy accessibility

## AB cable

- Need to puncture

## Armored Cable

- Difficult to puncture

- Because High Cost of replacement to armored cable, its Higher weight on pole low cost solution adopted – Armoured cast tape
  - To cover Open joints || Punctured locations || Span with less than 5 punctures
  - For punctures > 5 per span replacement to armored cable



# Application of armored Cast tape

## Some Sample Work

Before



Puncture in the LTAB Cable for Hooking

After



Application of Masking Tape at punctured spot

# Application of armored Cast tape

## Some Sample Work

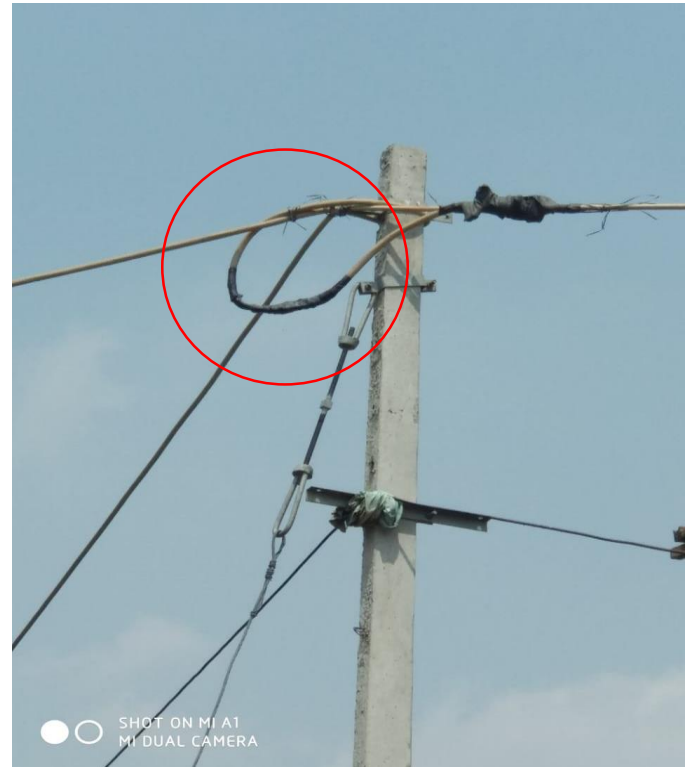
Before



Puncture in the LTAB Cable for Hooking



After



Application of Masking Tape at punctured spot

# LR Initiatives



## Bushing mounted DB in HVDS Areas

- Old DBs are accessible to consumer
- Raising the height of DB
- DB is near to HT bushing which creates deterrent for breaking

## Dedicated Street light Circuits

- Laying of Theft proof Armoured cables in street light circuits
- Application of auto controller helps in timely controlling of lighting points



# LR Initiatives



## Smart Pole Metering

- Pole metering unit with on-line communication
- Each Pole unit has 9 meters with real time data to central servers
- Very successful since results in high energy growth

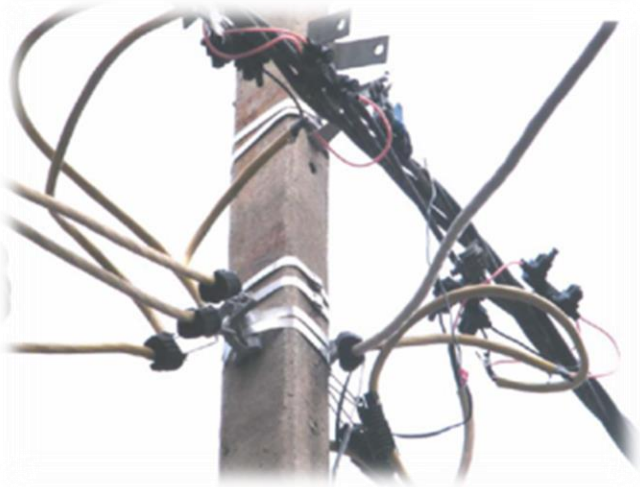
## LT Less system for AP connections

- Theft through LT bare conductors in Agriculture connections
- LT Less schemes ensures no direct taping through LV Mains.
- Also reduces Technical losses





# LR Initiatives



## Specialized Connector Installation

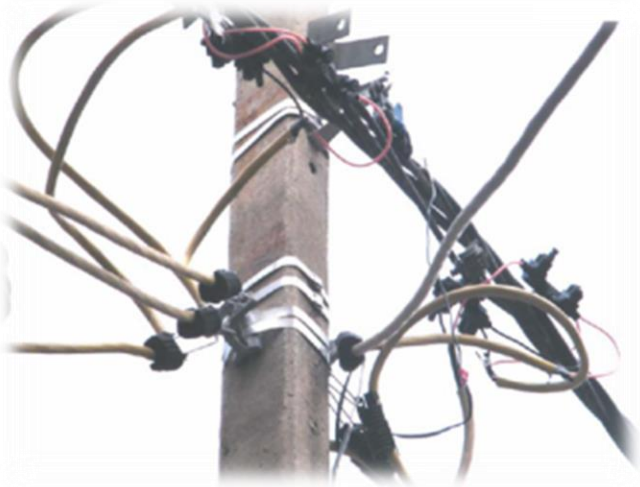
- Satellite Connectors are installed where Pole DBs are accessible for theft.
- Pole DBs will be removed and connections are energized through specialized connectors

## Armoured Cast Tape Coatings

- Used in High Theft Pockets where Direct tapping is prominent
- Direct theft is mainly through open joints at Pole DB or piercing connector
- Coatings are very effective as difficult to tamper.



# Specialised LR Initiatives



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# PMO of BRPL – Planning, Facilitation and Tracking



## CEO Con-call

- With key stakeholders twice a week (Tuesday and Thursday @ 11 AM)
- Update on activities undertaken during the day in 10 PM HOD Con-call



## Coordination meeting at Circle level

- Bi-Weekly Coordination meeting (2<sup>nd</sup> and 4<sup>th</sup> Wednesday @ 3 PM) – functions related to LR



## Daily analysis and ranking of executed activities

- Analysis of executed activities its quality and effectiveness circulated on daily basis



## Target Setting and tracking at Sub Division level

- Lead and Lag variables

# Project Management - Coordination and Tracking



## Weekly LR Champion

- On the basis of productivity of LR Workforce, weekly LR index is being published for all the divisions.
- Division team achieving 1<sup>st</sup> rank in a week is proposed to be awarded with upto Rs.5000/- for celebration



## Division Ranking

- Division ranking is being circulated on the basis of MU gain and Loss levels achieved by the divisions on monthly basis.



## Vendor Score Card

- Monthly Score card includes quantity and quality aspect
  - Weekly ranking against activities performed
  - Quality Ranking of jobs performed and User choices

# Surveillance and Inspection

Flying squad for Sustainability of performed LR activities

- Identifies potential Leads
- On spot booking of theft leads
- Sealing of open joints
- Faster is better – coordinate for early resolution of generated leads.
- Checking quality of executed work, material claim



# Loss Reduction (LR) Activity Module

Selection of Division

Details related to  
LR activities

MIS

BRPL LRT

Activity Entry Module

Division\* | -SELECT-

Sub Division\* |

Scheme No.\* |

Select Type\* | METER NUMBER

Meter Number\* |

\* Select any one option -

☐ Meter Replaced only

☐ Meter Relocated only

☐ Meter Replaced + Relocated (both activity on same meter)

☐ Meter Quality to limit theft

☐ Pole related quality to limit theft

BRPL LRT

Meter Number\* |

\* Select any one option -

☐ Meter Replaced only

☐ Meter Relocated only

☐ Meter Replaced + Relocated (both activity on same meter)

☐ Meter Quality to limit theft

☐ Pole related quality to limit theft

☐ Armored Cable(meter), other than service cable

☐ Armored Caste Tape

☐ Consumer Refusal

MCR No |

SUBMIT

BRPL LRT

Individual Activities MIS Report : 1/8/2019 To 26/8/2019

Sr No	Division	Meter Related	DB Related	Cable Related
TOTAL		49	159	6
1	Alaknanda	0	1	0
2	Chhawla	31	110	6
3	Dwarka	0	0	0
4	Jaffarpur	18	48	0

- Onsite punching of individual LR activities – By field / Execution Team / Vendors
- SDO / LR Manager / Engineer to ensure 100% entry of about 2000 jobs per day.

# LR Surveillance Module

BRPL LRT

ATR/ Feedback Entry : O & M

Circle \* | South 2 ▼

Division \* | Nizamuddin ▼

Sub Division \* | -SELECT-  
DEFENCE COLONY  
JUNG PURA  
KILOKARI  
LAJPAT NAGAR-2  
LODHI ROAD

Selection of NCs related to Meter

BRPL LRT

**Meter Related**

- ☐ Meter Not Relocated
- ☐ Meter revamping and Busbar installation at outside in multistoried buildings
- ☐ Old Kaifa/Old Genus Meter
- ☐ Meter Burnt/Faulty
- ☐ Meter removed but service line exist
- ☐ PI/PPL and Service cable disconnected
- ☐ Meter Box Sealing not proper/missing
- ☐ Meter Terminal Sealing not proper/missing
- ☐ Gland/Flower/M-seal not provided
- ☐ Meter at un-accessible position (>6 ft height)

**DONE**

Feedback Punching of NCs

BRPL LRT

**Surveillance MIS Report**

Circle \* | South 3 ▼

Division \* | Alaknanda ▼

Sub Division \* | -ALL-  
DDA FLAT KALKAJI  
G-BLOCK KALKAJI  
GK 2  
OKHLA PHASE 1

**Select Action Group**

- ☒ ALL
- ☐ Business
- ☐ Enforcement
- ☐ MMG
- ☐ O & M
- ☐ Street Light

From Date  
26/8/2019

MIS Selection Criteria



# Wining the Confidence



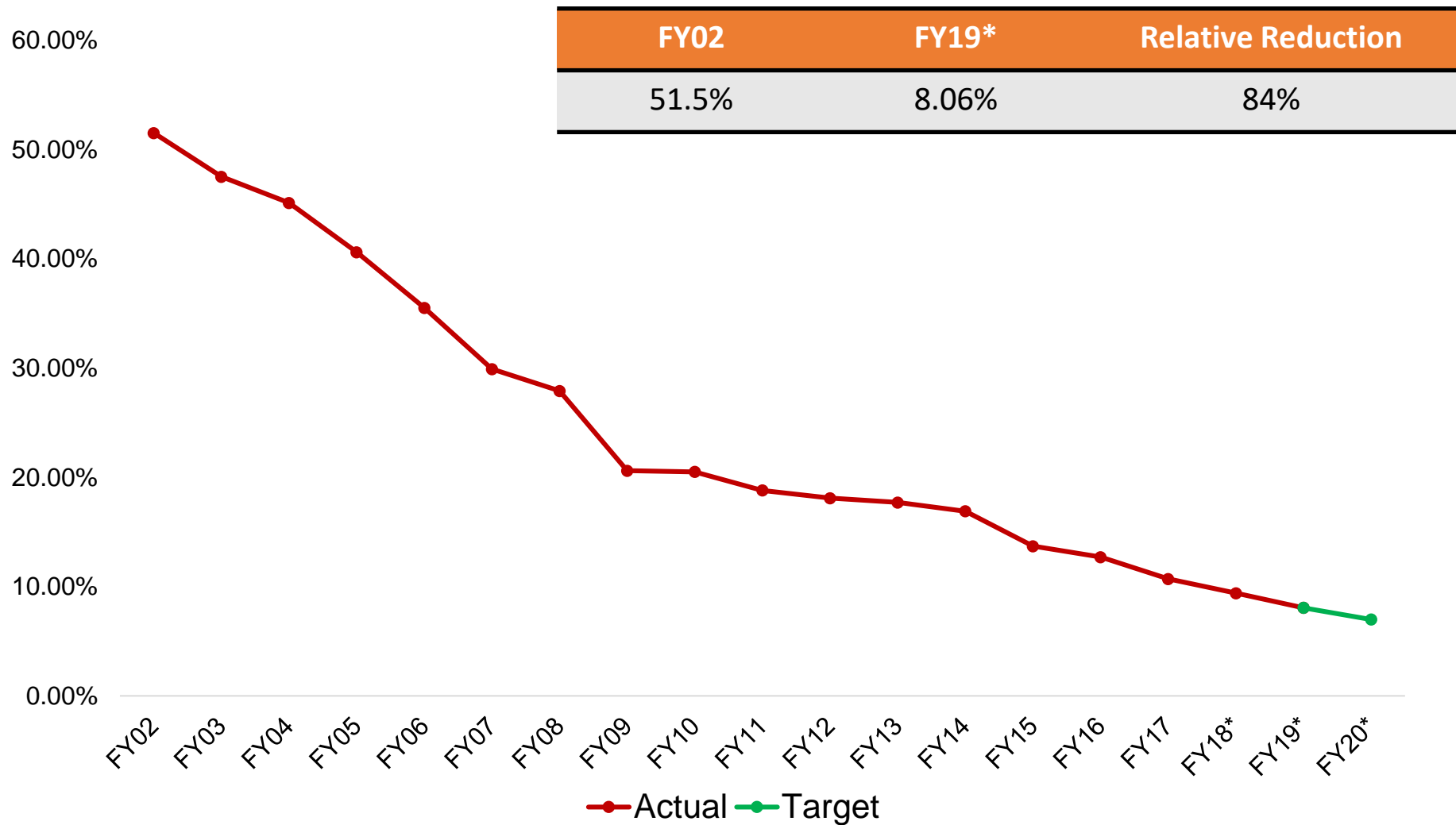


# ... and due to all South & West Delhi's loss ~6%

Circle	FY 2018	FY 2019	Δ Reduction	% Reduction
South Delhi	7.17%	6.14%	1.03%	14.37%
West Delhi (Exc. NJF,JFR,MDK)	7.74%	6.77%	0.97%	12.53%
Outer West (NJF,JFR,MDK only)	30.29%	25.38%	4.91%	16.21%
BRPL	9.42%	8.06%	1.36%	14.44%

- T&D loss reduction is 16.5% in FY19
- In South and West part of Delhi, BRPL has achieved near to 6% which is similar to world's best utilities.
- 1% Loss Reduction = ~ 100 Cr. Savings to BRPL Customers which reflects in current tariff

# To Sum up...





Thank you for your time! Questions?

## Contact detail

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