



LOSS REDUCTION JOURNEY TATA POWER DELHI DISTRIBUTION LTD.

Sanjay Banga
CEO – TATA Power Delhi Distribution Ltd.

ABOUT TATA POWER DELHI DISTRIBUTION LIMITED

“To be the most trusted and admired provider of reliable, competitive power and services, and be the company of choice for all stakeholders”



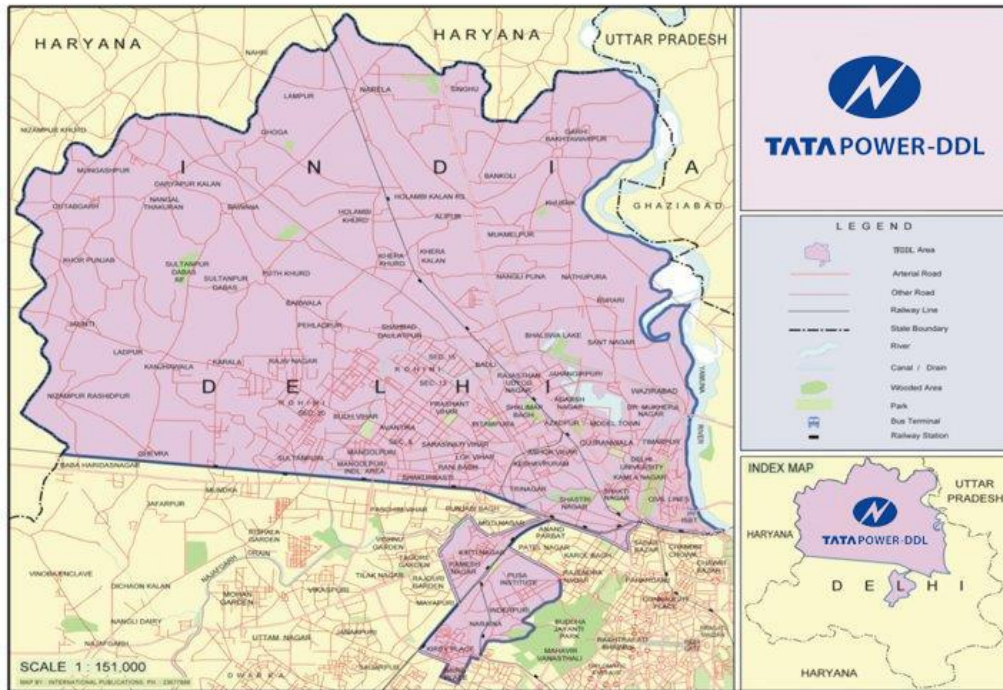
51:49 Joint Venture
of The Tata Power Company Limited
(Tata Power)
and
the Government of Delhi
Formed on 1st July 2002
in



ABOUT TATA POWER DELHI DISTRIBUTION LIMITED

we believe in

MAKING A DIFFERENCE



One of the Most Successful Private Power Distribution Utility

License Area: North and North West Delhi
(510 sq. km)

License Period : 25 years

Parameter	Unit	July '02	March '18	% change
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OPERATIONAL PERFORMANCE

AT&C Losses	%	53.1	8.40	85%
System Reliability – ASAI -Availability Index	%	70	99.67	42%
Transformer Failure Rate	%	11	0.71	95%
Peak Load	MW	930	1852	85%
Length of Network	Ckt. Km	6750	15378	128%
Street Light Functionality	%	40	99.41	150%

CONSUMER RELATED PERFORMANCE

New Connection Energization Time	Days	51.8	2	96%
Meter Replacement Time	Days	25	2.09	92%
Provisional Billing	%	15	0.65	94%
Defective Bills	%	6	0.34	98%
Bill Complaint Resolution	Days	45	2	95%
Mean Time to Repair Faults	Hours	11	1.3	87%
Call Center Performance - Service Level	%	-	94	
Payment Collection Avenues	Nos.	20	6725	33525%
Consumer Satisfaction Index	%	-	91	

OTHERS

Capex (Cumm)	Mn USD	187	1060	467%
Consumers	Count Mn	0.7	1.7	143%
Employees	Count	5600	3283	41%

PRE-2002

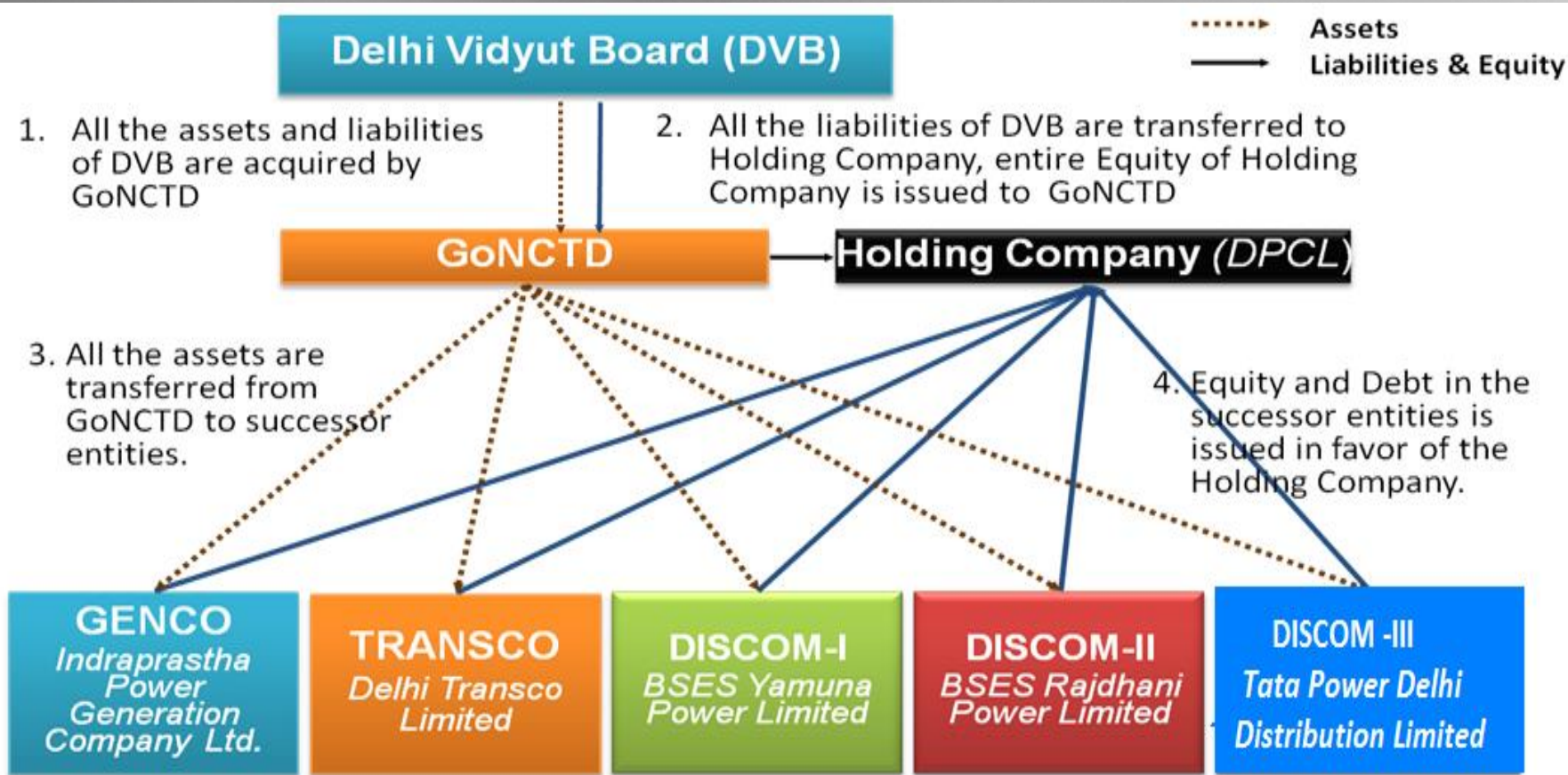


JOURNEY OF EXCELLENCE: Started on 1st July'2002

A new dawn on 1st July 2002...

Birth of Tata Power Delhi Distribution Limited...

DELHI REFORM MODEL



- ❖ **Asset valuation** was done in **Business Valuation Method**
- ❖ **License-based** Regulated business for **25 years**.
- ❖ **Guaranteed 16% RoE** on meeting AT&C Targets.
- ❖ **Tariff** set by regulator on **cost plus RoE basis**.

REFORM STRATEGY

Improving Reliability and Quality of Power - Network / System Revamping

- Run-Repair-Replace Options – CAPEX Plan Preparation
- Roadmap for Network Reliability & N-1 Redundancy

State of Art IT Interface for enhanced Consumer Services and Revenue Protection - Automation & IT Roadmap

Understanding Customer Needs and Requirements

- Customer Satisfaction Survey
- Participation of Society / Meetings with Stakeholders

Commercial Process Reengineering – an industry first!

- 9 Module RCM
- Consumer Segmentation

Performance Measurement and Management

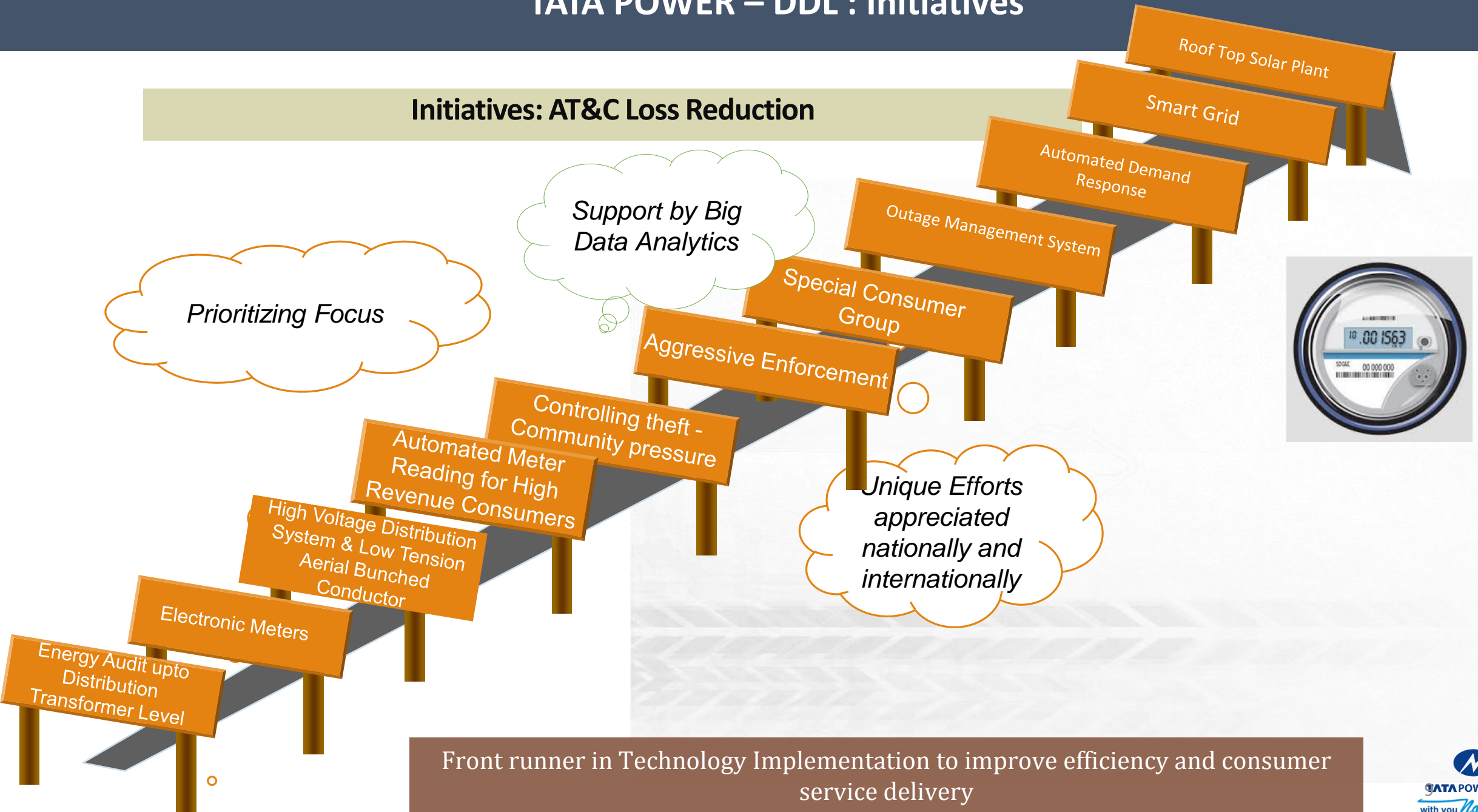
- Peer Competition through Monthly Score Cards
- Roles & Responsibilities through specific JDs & KRAs of individuals

Establish TATA Brand Image

- Govern in the psyche of the Employees by Developing a Sense of Assurance
- Social Audit and Corporate Sustainability

TATA POWER – DDL : Initiatives

Initiatives: AT&C Loss Reduction



TATA POWER – DDL : Initiatives

Initiatives: Network Reliability Improvements

Before



Outdoor
Transformer

After

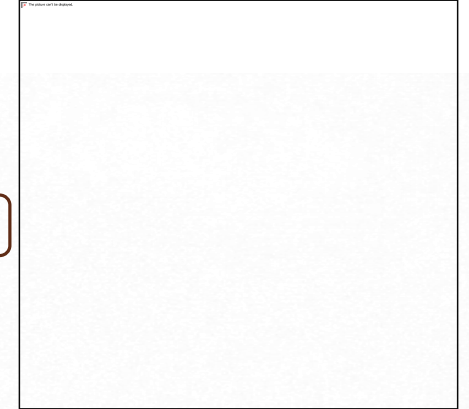


Before



Network

After



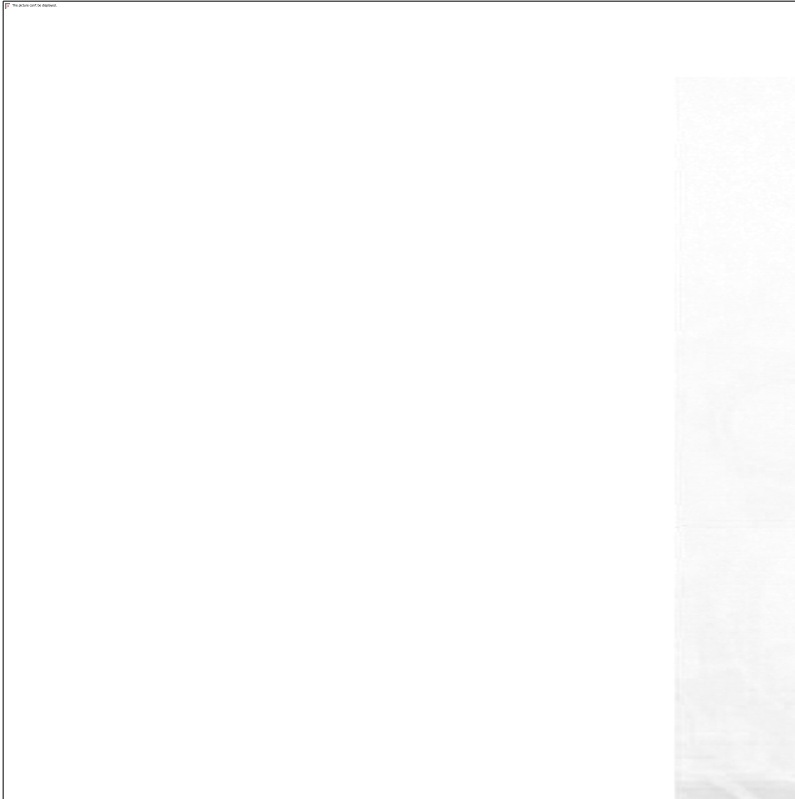
Bus Bar

Grid
Station



TATA POWER – DDL : Initiatives

Initiatives: Network Reliability Improvements

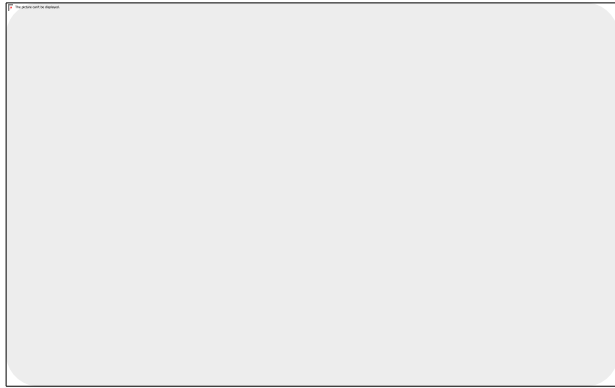


Legacy Infrastructures

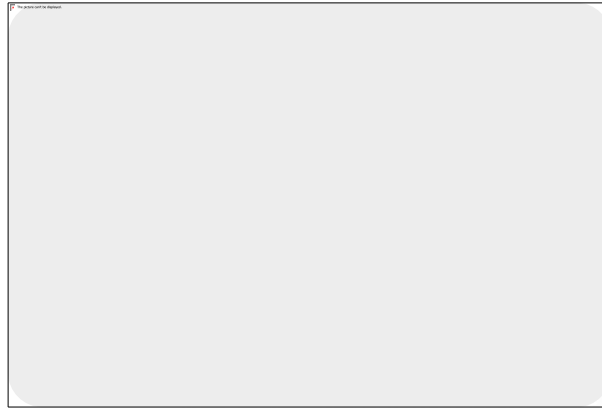


Existing Infrastructures

TATA POWER – DDL : Initiatives



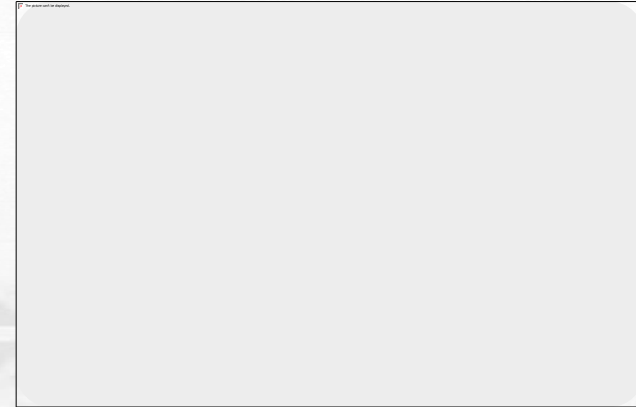
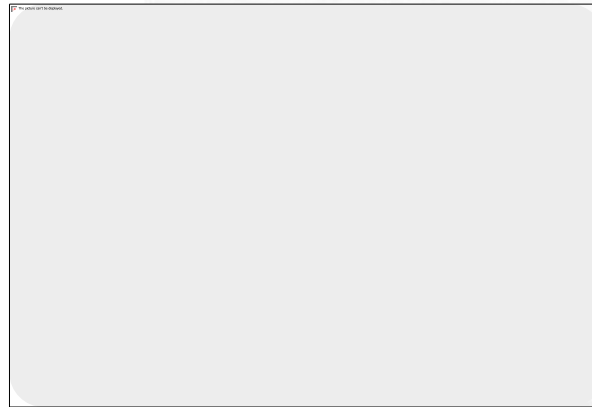
*Fully Automated
Unmanned Grids*



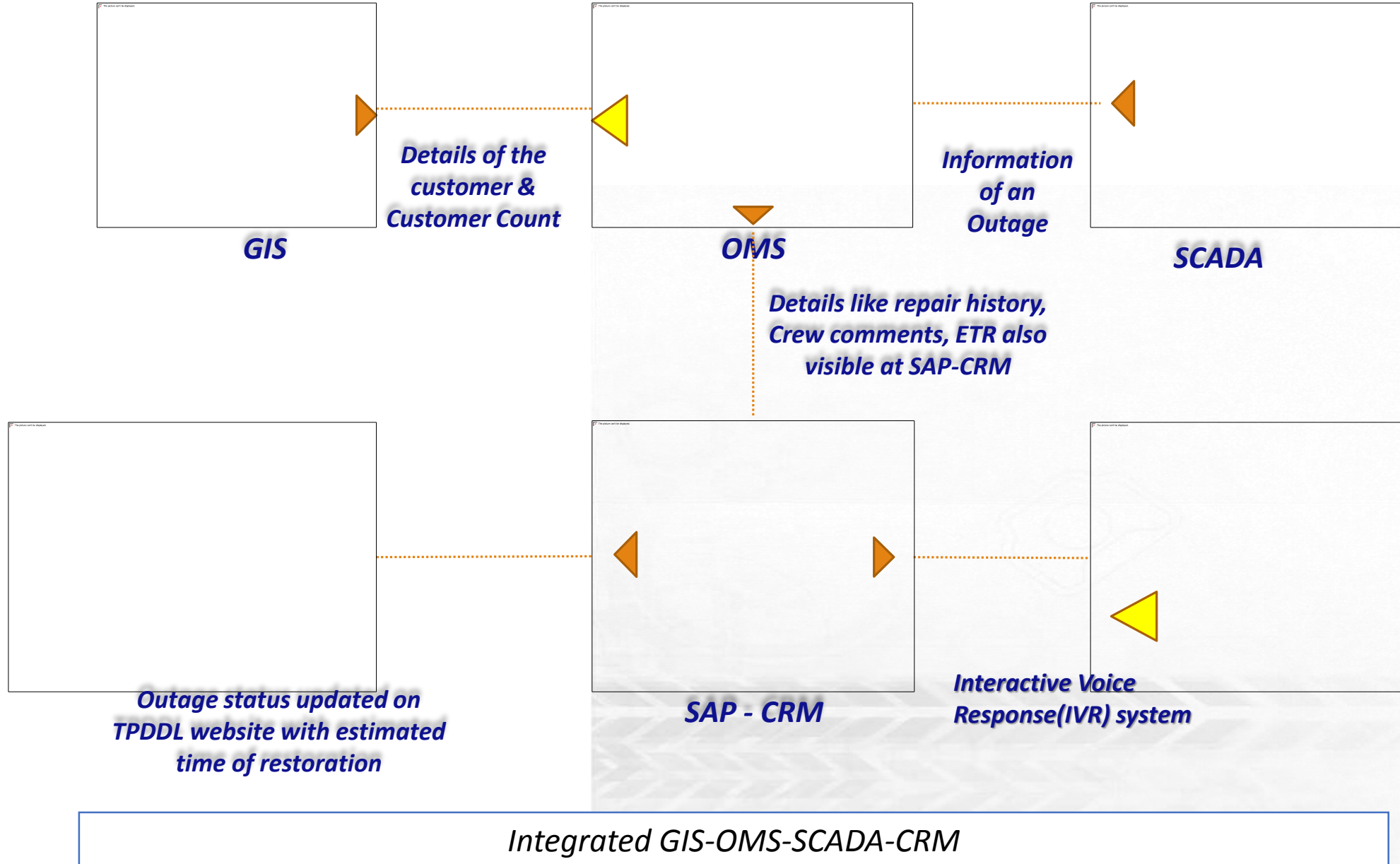
Remote Monitoring & Control



24x7 Power Supply

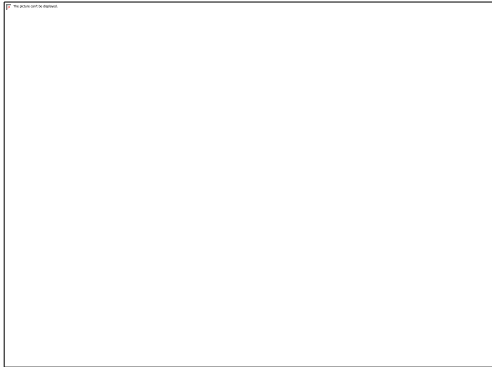


TATA POWER – DDL : Initiatives

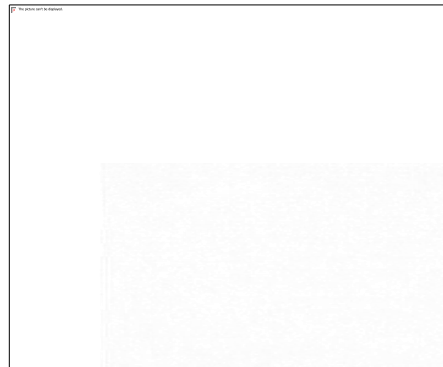


TATA POWER – DDL : Initiatives

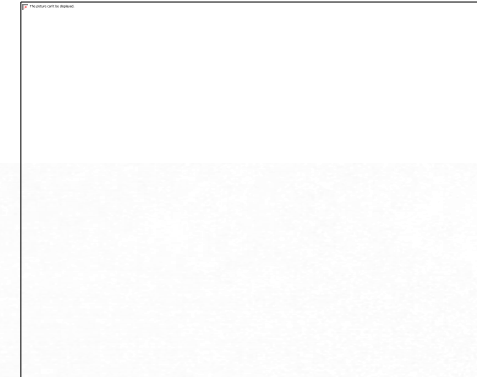
Pioneer In Utilizing Various Metering Technologies - Industry First



Automatic Meter Reading



Split Metering



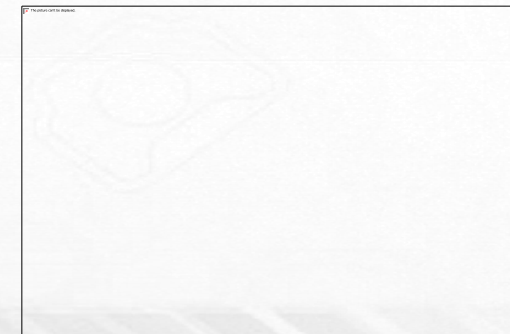
Group Metering



Van Model Installation



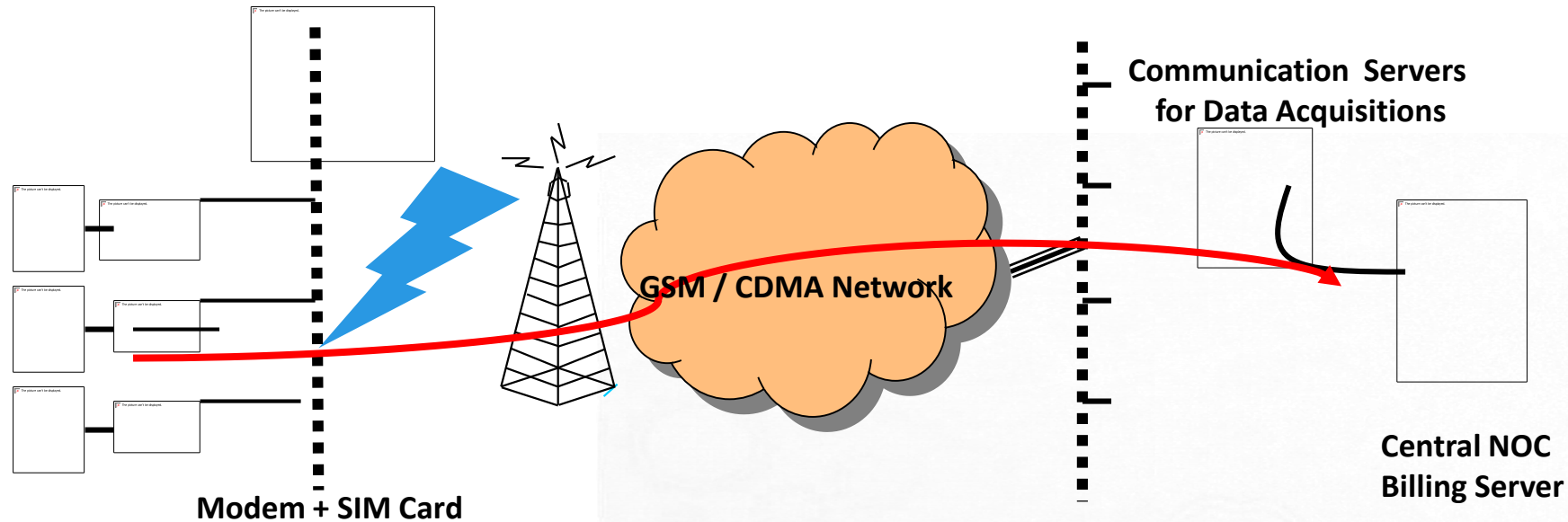
Pre-Paid Metering



Pilot for SMART Meter

TATA POWER – DDL : Initiatives

AMR Architecture @ TPDDL



First Indian utility to implement AMR for all connections above 11 KW

Approx. 55,000 LT-CT, HT and DT meters contributing 70% to TPDDL's revenue

Indigenously developed AMRDA carries out seamless reading and analysis

Success Rate: More than 98% per month

Geographical Information System

Edison Award
2008 for GIS
Implementation

Complete Geography mapped.

*Accurate Land base to the extent of
1 meter accuracy*

*Network at all voltage level
mapped*

*Grid and Substation Internal
Equipment Mapped*

*1.5 Mn customers have been
mapped on GIS*

Business Process Integration using GIS

Information Technology (IT)

Operation Technology (OT)

Supervisory Control and Data Acquisition (SCADA)

Outage Management System (OMS)

Demand Side Management (DSM)

Geographic Information System (GIS)

Automatic Meter Reading (AMR)

SAP's Industry Specific Solution for Utilities Industry (SAP-ISU)

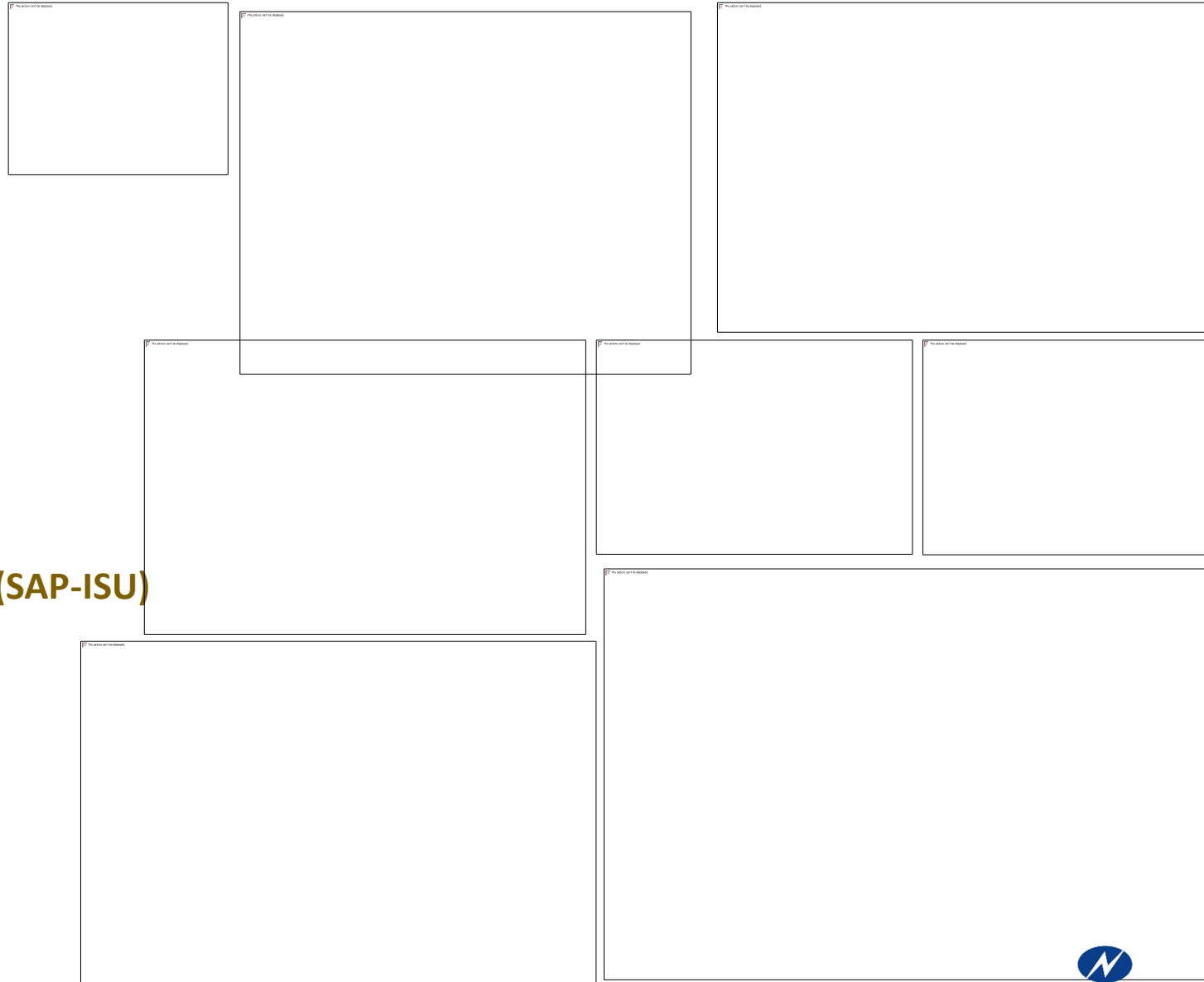
24*7*365 Centralized Call Center

Automated Demand Response (ADR)

Solar Rooftop PV Projects

Project Management Consultancy

Capacity Building

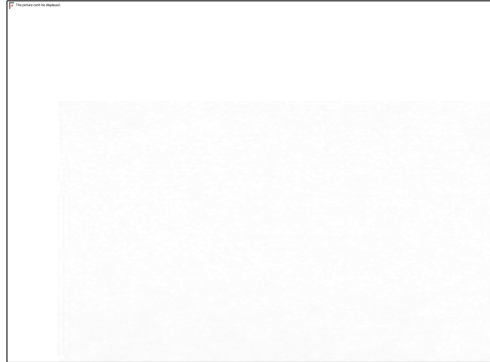


TATA POWER – DDL : Initiatives

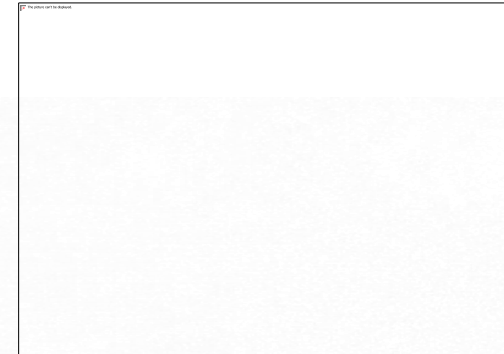
Billing & Collection System



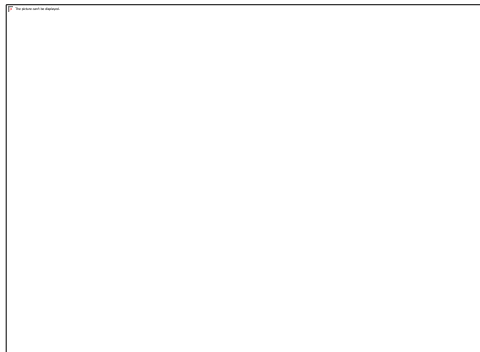
**Home Delivery of
Connections**



Instant Connection



Video Conference



**Automatic Payment
Machines**



SMS based pull services

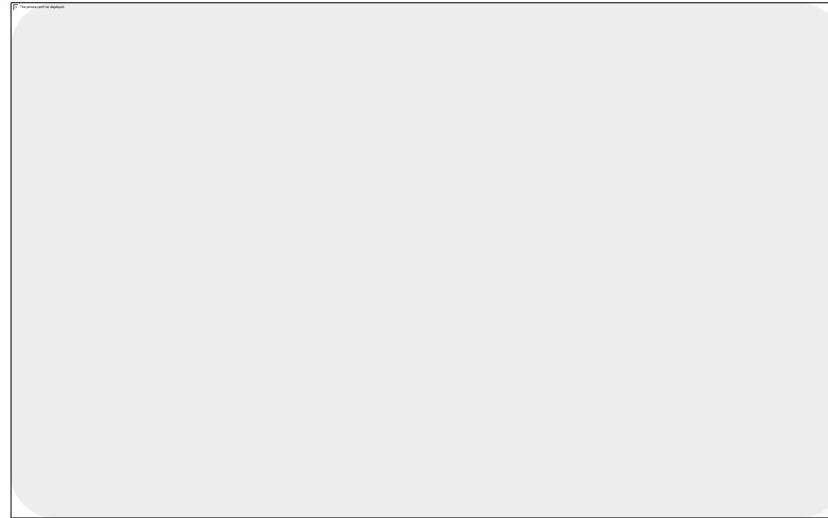


Spot Billing

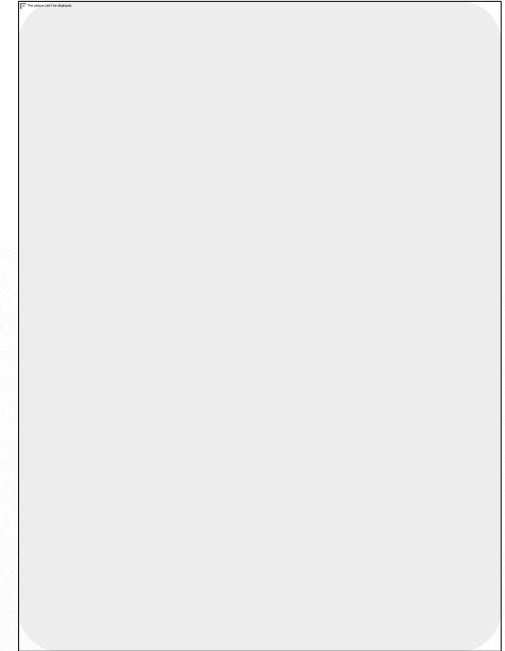
TATA POWER – DDL : Initiatives



Instant Service at Doorstep



Integrated Web Services for Desktops & Handheld Devices



TATA POWER – DDL : Social Innovation

Joy of Giving...

**Drug
Deaddiction
camps**

**Tree
Plantation
*Harit-ek-
Pahal***

**Mobile
Dispensary
van**

**Vocational
Training**

**Commitmen
t to
Affirmative
Action -
E,E,E**

**Helping the
Special
Abled**

**Adult
Literacy
Center for
Women**

**Awareness
Campaigns**

**Tutorial
Centers**

**Warm
Clothes
Donation**

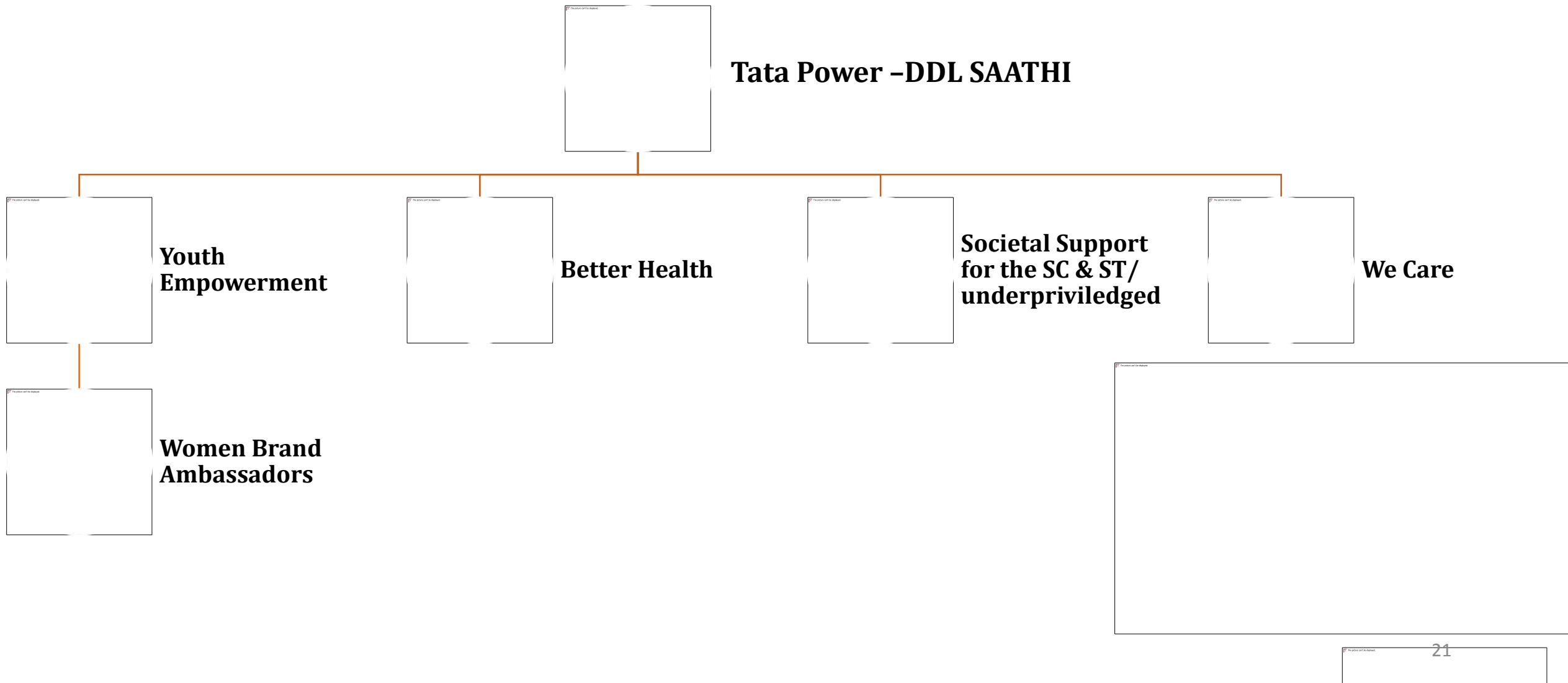
**Support to
Child Homes**

**Blood
Donation**

223 JJ Clusters across North and North-West Delhi

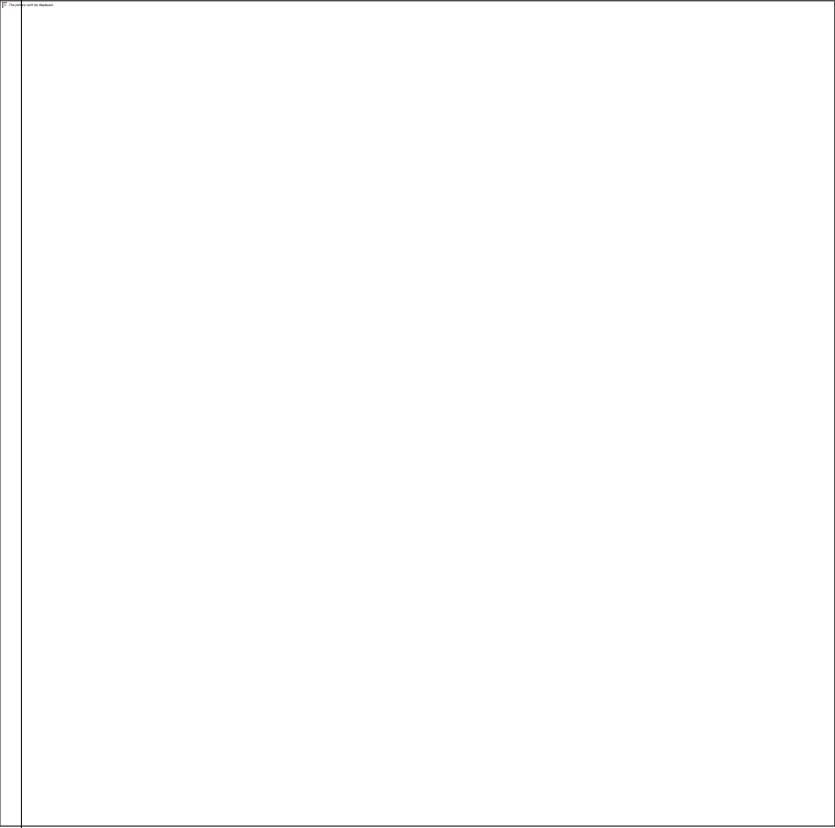
TATA POWER – DDL : Social Innovation

Pillars of Social Innovation
Our Commitment shows in more ways than One!!

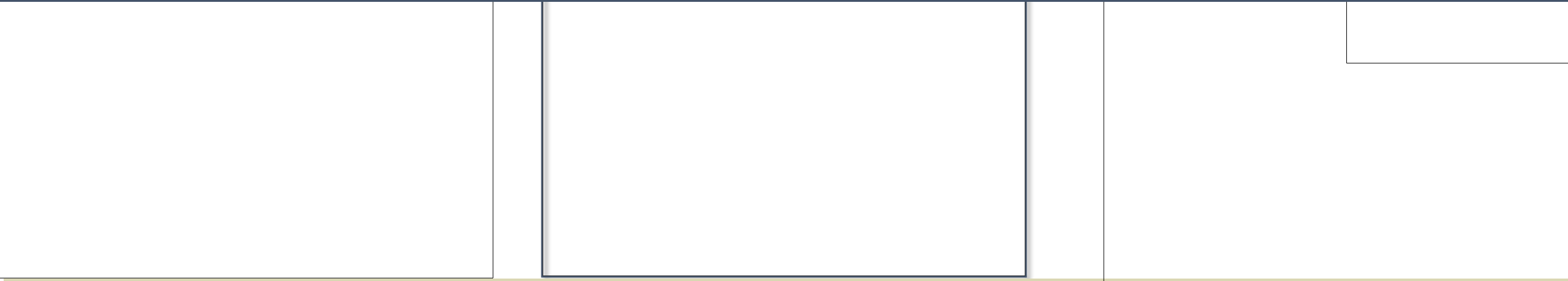


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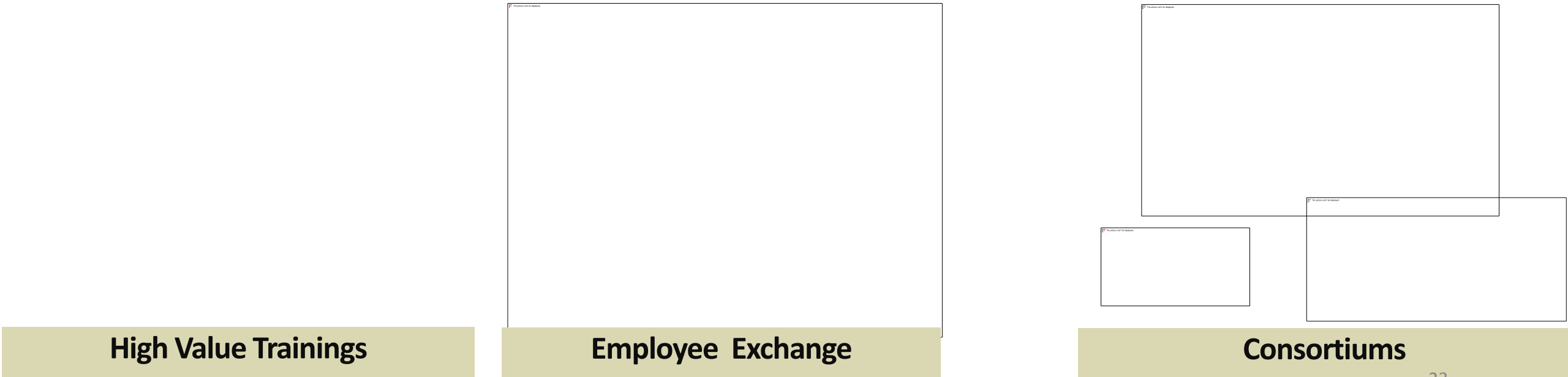
Benefitted nearly 1.5 Mn people residing within Licensed Area



TATA POWER – DDL : EMPLOYEES @ CORE OF TRANSFORMATION



In House Development Capability through CENPEID, Test Beds, Labs etc..



TATA POWER – DDL : EMPLOYEES @ CORE OF TRANSFORMATION

Annually
23916 mandays of
trainings

Annually 650 man-
days of external
training

850+ employees opted
for Higher Education
avenues in last 4 yrs

Higher Education Sponsorship

World Class Training Facility

Mentoring

Collaborations

Sessions by Senior Management

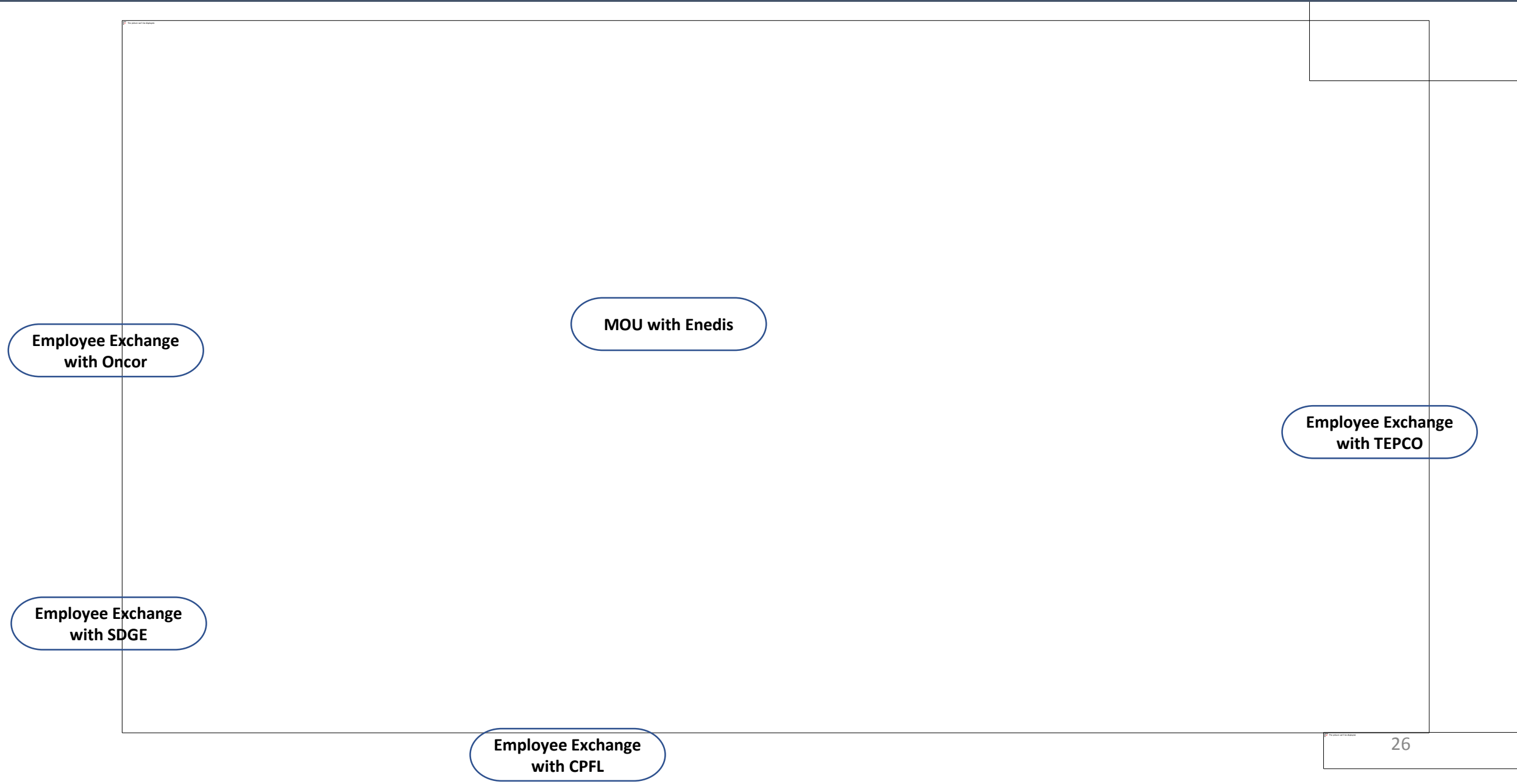
Mentoring

Youth Power Confluence

TATA POWER – DDL : EMPLOYEES @ CORE OF TRANSFORMATION



TATA POWER – DDL : EMPLOYEES @ CORE OF TRANSFORMATION



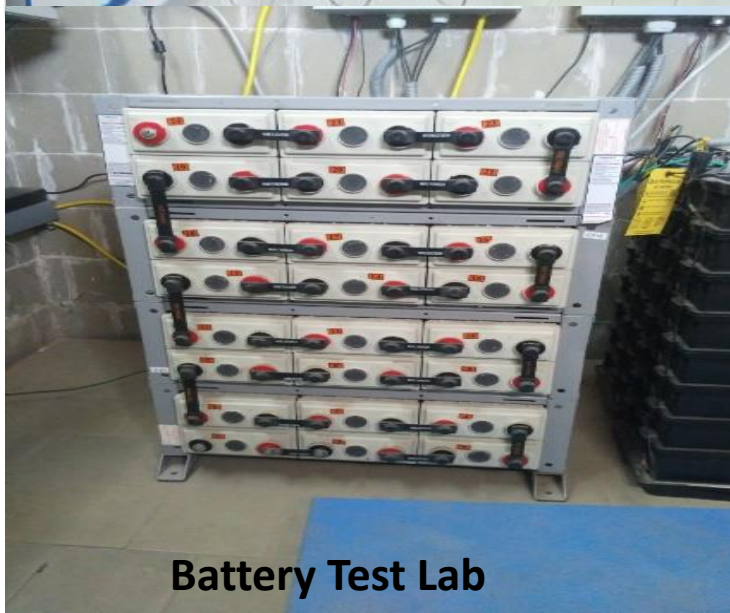
TATA POWER – DDL :R&D CAPABILITY



Smart Grid Lab



NABL Accredited Meter Testing Laboratory



Battery Test Lab



RMU Workshop



DT Workshop

TATA POWER – DDL :COLLABORATION PARTNERS

Tata Power-DDL is collaborating with 87 National and International Technology Partners, Institutional and Financial partners to not only bring efficiencies in its Licensed Area but also working towards Sectoral sustenance and building a future proof Industry is text.

National & International Partners varying from startups to Fortune 500



TATA POWER – DDL :OUR PRESENCE

AT&C Loss
Reduction
Services

IT &
Automation
Services

Revenue
Cycle
Management
Services

Capacity
Building &
Change
Management
Services

Nationally
With presence in over **16 States**
in India and working with **30**
state DISCOMS

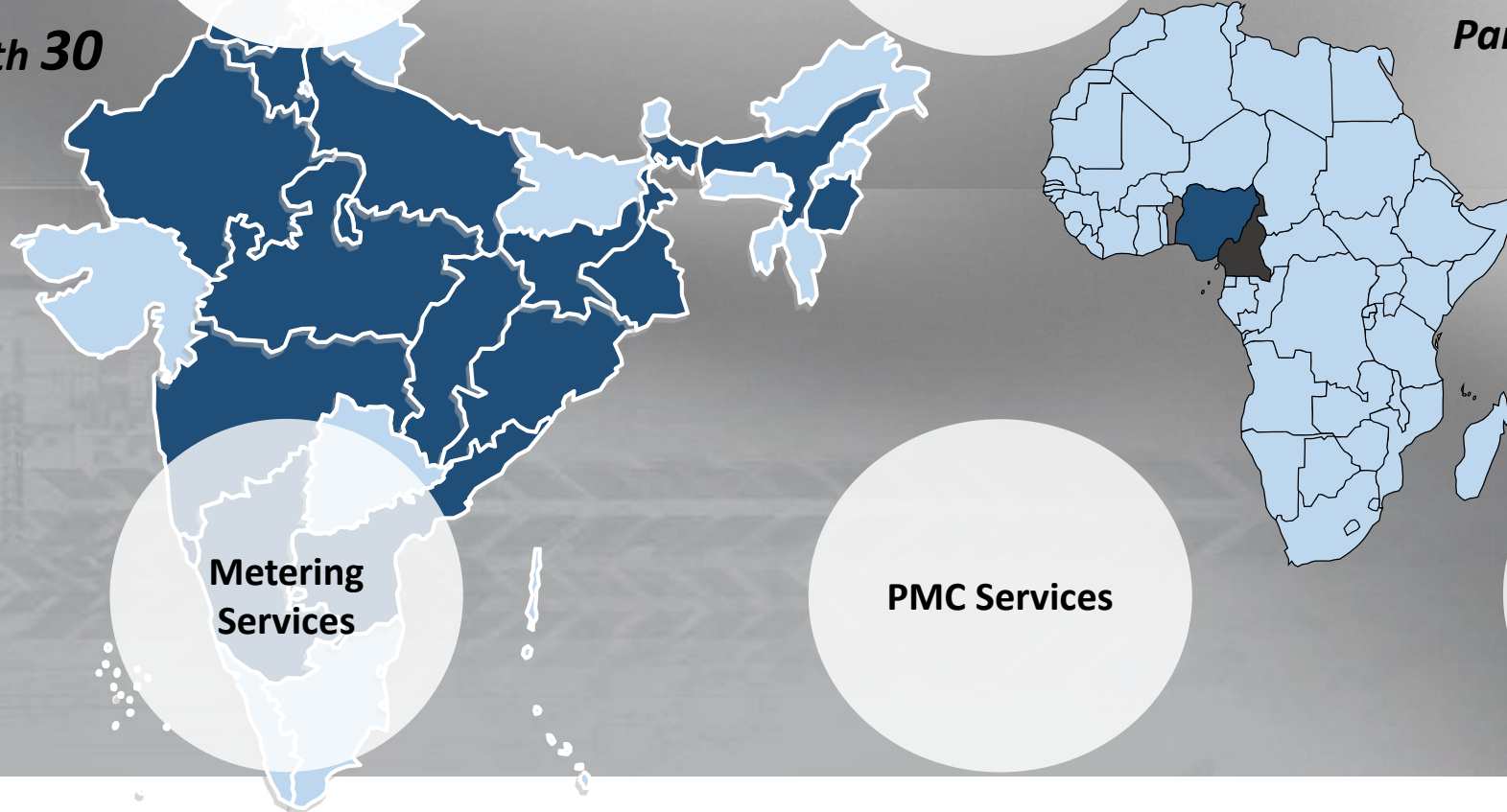
Internationally
Present in Benin, Ekwem and
Kano Discoms as Management
Partners

Technical &
Maintenance
Services

Metering
Services

PMC Services

Network
Upgradation





THINK US FOR

TECHNOLOGY ADOPTION

- State-of- the- Technology Implementation in Power Distribution
- Seamless Integration of Various Technologies

CREATING BUSINESS VALUES

- Managing Power Distribution services
- Transaction Advisory Services
- Consultancy services on -Loss Reduction / Process Re-engineering / Functional Consultancy
- Project Management & Managing Capital Investment

CAPITALIZING BUSINESS IDEAS

- Setting up Green Field Distribution Project
- Distribution Privatization & other business transformation model
- Managing electrical infrastructure in SEZ / Townships

PREPARING FOR FUTURE

- Capacity Building Service
- Preparation of Business Plan
- Technology Roadmap Preparation for Information & Operation Technology

Powering Delhi....

NON-STOP