

TATA POWER DELHI DISTRIBUTION LIMITED

A Tata Power and Delhi Government Joint Venture



Excellence Journey @ TPDDL



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Power Industry – Value Chain

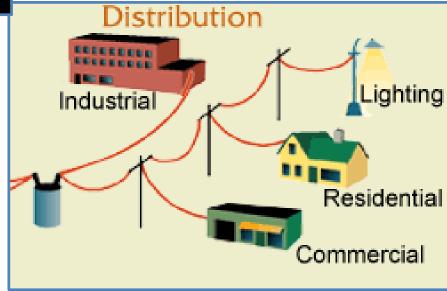


Generation



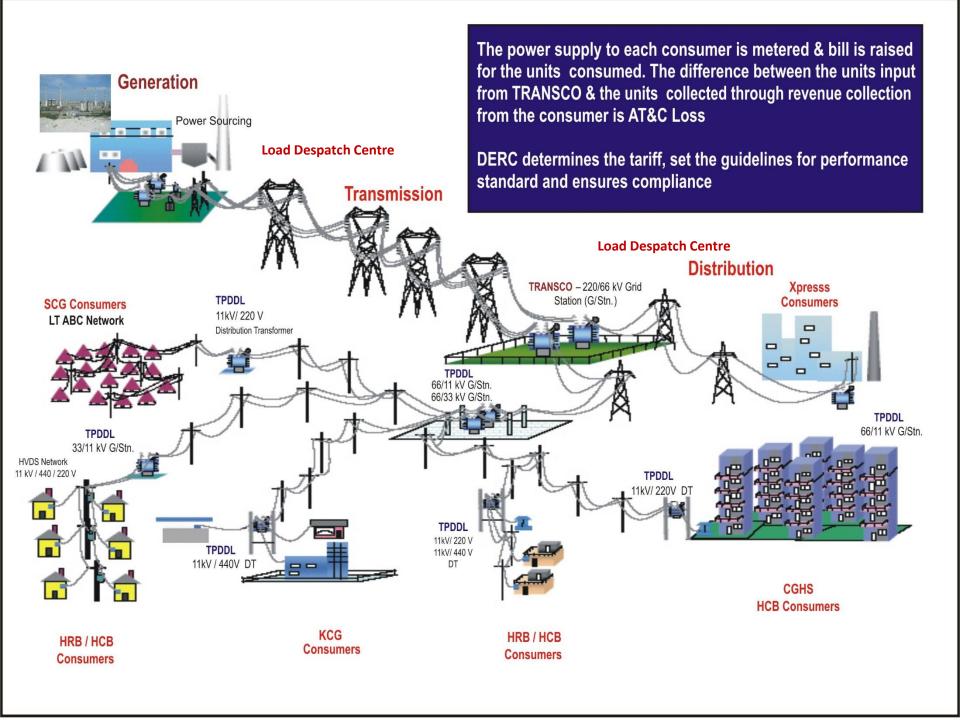
Transmission







Distribution



Power Sector Regulatory Framework

Government (Central and State)

 Give overall directions to the Power Sector through legislations

Central Electricity Authority (CEA)

 Apex Planning Body to the Govt.

Central Electricity Regulatory Commission (CERC)

 Regulates Central Sector Undertakings and Inter State Generation and Transmission

State Electricity Regulatory Commissions

 Regulate Intra State Generation, Transmission and Distribution

Appellate Tribunal for Electricity (ATE)

 Legal Authority to adjudicate disputes on Regulatory Orders

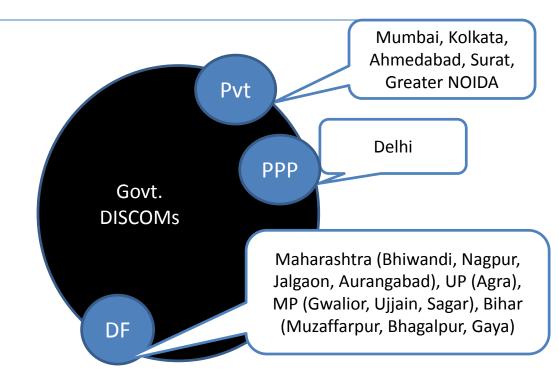
- Power is a **Regulated Business** under the purview of respective State and Central Electricity Regulatory Commission & governed by provisions of Electricity Act'03.
- India has a generation capacity of 267 GW with 71% share from Thermal, 15% from Hydro,
 2% from Nuclear & 12% from Renewable Energy Sources. Additionally, there is captive generation of 40 GW
- The country as a whole is currently in a power deficit scenario with peak & energy deficits of around 5% (Delhi is in surplus situation).
- Average Per capita consumption of India is around 950 units while that in Delhi is around 1300 units.





Distribution Sector

- Distribution is a licensed activity under the EA 2003.
- SERCs award distribution license.
- 85% of Distribution sector largely dominated by State Owned Electricity Boards.
- TPDDL (Distribution) is Regulated by Delhi Electricity Regulatory Commission (DERC) who is responsible for determination of tariffs chargeable to consumers.

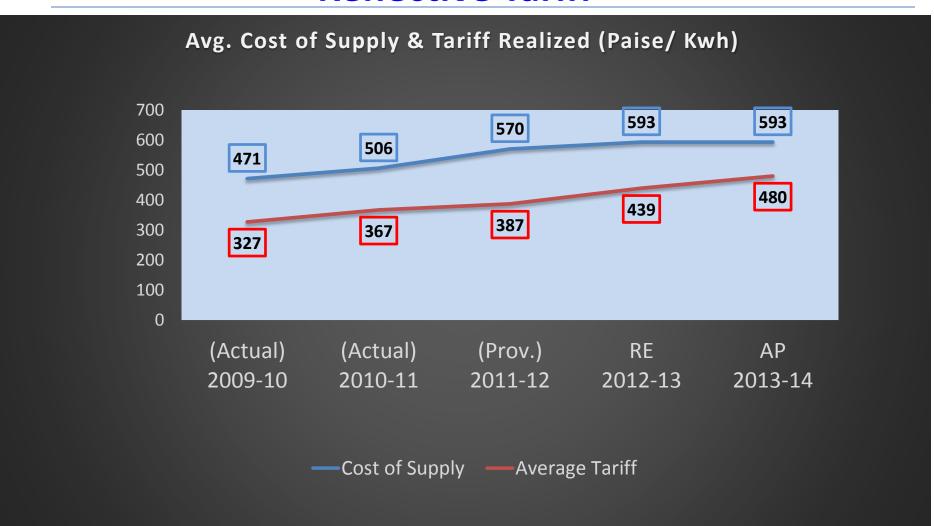


DF – Distribution Franchisee; PPP-Public-Pvt Partnership





Key Issues in the Distribution Sector: Cost Reflective Tariff





Source: Planning Commission Report, March 14



Key Issues in the Distribution Sector: Liquidation Regulatory Overhang

What is Regulatory Overhang?

- The shortfall in the Company's revenues billed at current tariffs & those chargeable by it to its consumers based on costs incurred during the year is termed as **Revenue Gap** in Regulatory Parlance.
- Recognized as Income of the Current Year on basis of accrual system of accounting which
 requires revenues to be recognized in the year to which they pertain, even though
 realisable in future, so long as the same are quantifiable and there is certainty of ultimate
 recovery.
- The outstanding Revenue Gap recoverable from future tariffs is termed as Regulatory Overhang.





Distribution Scenario – Major State wise Losses (Upto FY 13)

S No.	State Wise Data (FY 13)	Sold Units (MUs)	No. of consumers (Mns)	Financial Loss (FY 13) Accrual Basis (Rs. Crs/USD Mn.) AT&C Loss (%) for FY 13		Yearly Govt. Subsidy for FY 13 (Rs. Crs/USD Mn)	
Northern	Region						
1	J&K	5149	1.3	(7595)/(1189)	52.8	-	
2	Uttar Pradesh	53539	24	(33766)/(5284)	42	3126 / 489	
3	Punjab	36528	7.3	(7023)/(1099)	17.6	4244 / 664	
4	Uttarakhand	8577	1.6	(1890)/(295)	23.1	-	
5	Rajasthan	42160	7.8	(53802)/(8419)	20	5769 / 902	
6	Delhi	23068	4.5	(22444)/(3512)	15.2	306 / 48	
6.A	TPDDL	7762	1.3	(4773)/(746)	10.7	75.6 / 12	
6.B	BRPL	9827	1.8	(11182)/1749)	15.1	142 / 22	
6.C	BYPL	5479	1.3	(6489)/(1015)	17.9	89 / 14	

* AT&C after FY 15 – 9.87%

Source: Ministry of Power

1 USD = 63.9 INR

Distribution Scenario – Major State wise Losses (Upto FY 13)

S No.	State Wise Data (FY 13)	Sold Units (MUs)	No. of consumers (Mns)	Financial Loss (FY 13) Accrual Basis (Rs. Crs/USD Mn.)	AT&C Loss (%) for FY 13	Yearly Govt. Subsidy for FY 13 (Rs. Crs/USD Mn.)
Southern	Region					
7	Andhra Pradesh	68106	22.9	(15891)/(2486)	13.63	730 / 114
8	Tamil Nadu	52747	22.1	(46249)/(7238)	20.72	1165 / 182
9	Karnataka	45656	19	(12215)/(1191)	20.78	5000 / 782
10	Tamil Nadu	52747	22.1	(46249)/(7237)	20.72	1165 / 182
Eastern Re	egion					
11	Odisha	13552	3.2	(12074)/(1889)	42.94	328 / 51
12	West Bengal	20534	11.7	(11125)/(1741)	34.43	378 / 59



with you Non-Stop

Distribution Scenario – Major State wise Losses (Upto FY 13)

S No.	State Wise Data (FY 13)	Sold Units (MUs)	No. of consumers (Mns)	Financial Loss (FY 13) Accrual Basis (Rs. Crs/USD Mn.)	AT&C Loss (%) for FY 13	Yearly Govt. Subsidy for FY 13 (Rs. Crs/USD Mn.)
Western F	Region					
14	Gujarat	59,705	14.6	(2008)/(314)	19.8	1246/194
15	Maharashtra	83488	20.7	(21423)/(3353)	21.9	85/13
16	Madhya Pradesh	32956	4.16	(9895)/(1549)	31.1	1501/234
17	Chattisgarh	16090	3.5	(3355)/(525)	25.1	93/14
1	Total	660257	209.7	(319219)/(49956)	-	301360/47161





Tariff Comparison across different utilities of Indian Metro Cities

	Delhi (TPDDL)	Mumbai	Kolkata	Chennai
Consumer Category	Rs. / Unit	Rs. / Unit	Rs. / Unit	Rs. / Unit
Dom - 2 Kw* (upto 200 units)	2.20	5.1	5.12	4.15
Dom - 2 Kw* (Upto 400 units)	2.59	6.05	5.62	5.14
Non Domestic/ Commercial- 20 kW	10.15	12.88	7.64	8.42
LT Industrial - 20 kW	9.2	10.63	6.88	6.58
HT Industrial - 100kW/108 KVA	8.3	9.44	8.77	7.66
Peak Load (in MW)	1704	3192	1856	2000
No of Consumers (In mn)	1.4	3.0	2.5	1.1

* Domestic Tariff upto 400 units include 50% subsidy on energy charges





Tariff Comparison across different Utilities near Delhi NCR

	Delhi (TPDDL)	Haryana	Uttar Pradesh	Rajasthan
Consumer Category	Rs. / Unit	Rs. / Unit	Rs. / Unit	Rs. / Unit
Dom - 2 Kw* (Upto 200 MW)	2.20	4.14	5.03	5.16
Dom - 2 Kw* (Upto 400 MW)	2.59	4.60	4.94	5.17
Non Domestic/ Commercial- 20 kW	10.15	8.50	9.45	7.35
LT Industrial - 20 kW	9.20	8.16	10.1	6.32
HT Industrial - 100kW/108 KVA	8.30	6.88	8.10	6.51
Power Outage During Summer(Avg. Hrs/Day)**	0	4-6	4-6	2-2.5
Peak Demand Met (In MW)	1704	8114	8733	10038
No of Consumers (In Mn)	14.4	50	239	78

* Domestic Tariff upto 400 units include 50% subsidy on energy charges





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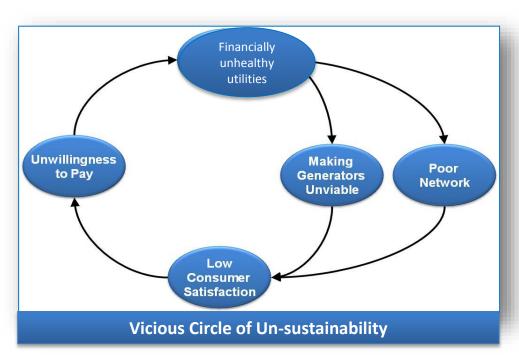
Recognitions





Power Scenario in Delhi: Prior to Reforms in 2002

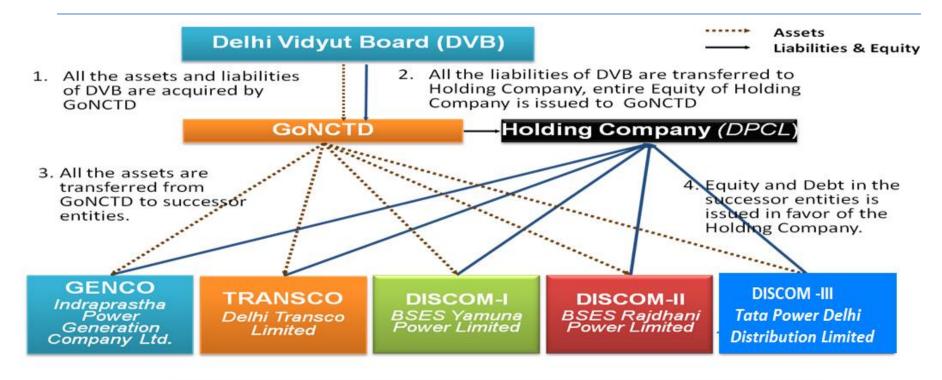
- AT&C/Theft losses range between 53% to 60% of Input
- Govt. Subsidies approx. Rs 1,500 Cr per annum to bridge Revenue Gap
- Condition of Network pathetic
- Billing Receivables close to 1 year outstanding
- Poor Condition of Consumer Records
- Consumer nowhere in focus/Regular black-outs and brown-outs of 4-6 hours



- Investment needed to improve Network
- Subsidies not a long term solution; Sector to be made
 Self Sufficient
- AT&C loss reduction and sector efficiency improvements required
- Enhance consumer satisfaction
- Introduce Best Practices, enhancing employee skill sets and morale

Need for Reforms

Delhi Privatization Model

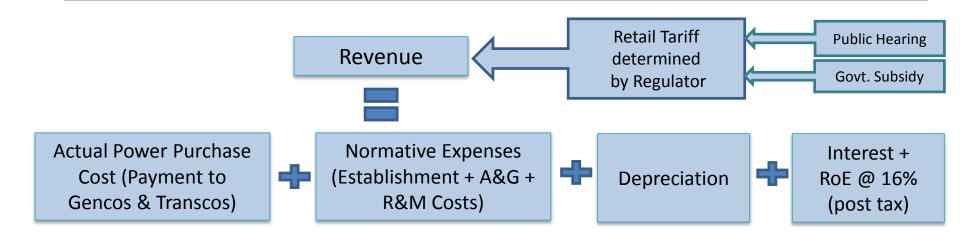


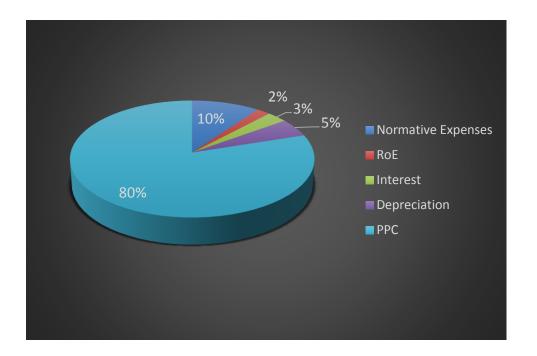
- License-based Regulated business for 25 years.
- Guaranteed 16% RoE on meeting AT&C Targets.
- Tariff set by regulator on cost plus RoE basis.





Business Model (Cost Plus Basis)





Profit linked to DERC Approved Investment and not Revenues

Incentives and Penalties for Over/ Under Achievement of Regulatory Targets

- A&G Administrative & General
- R&M Repair & Maintenance Cost



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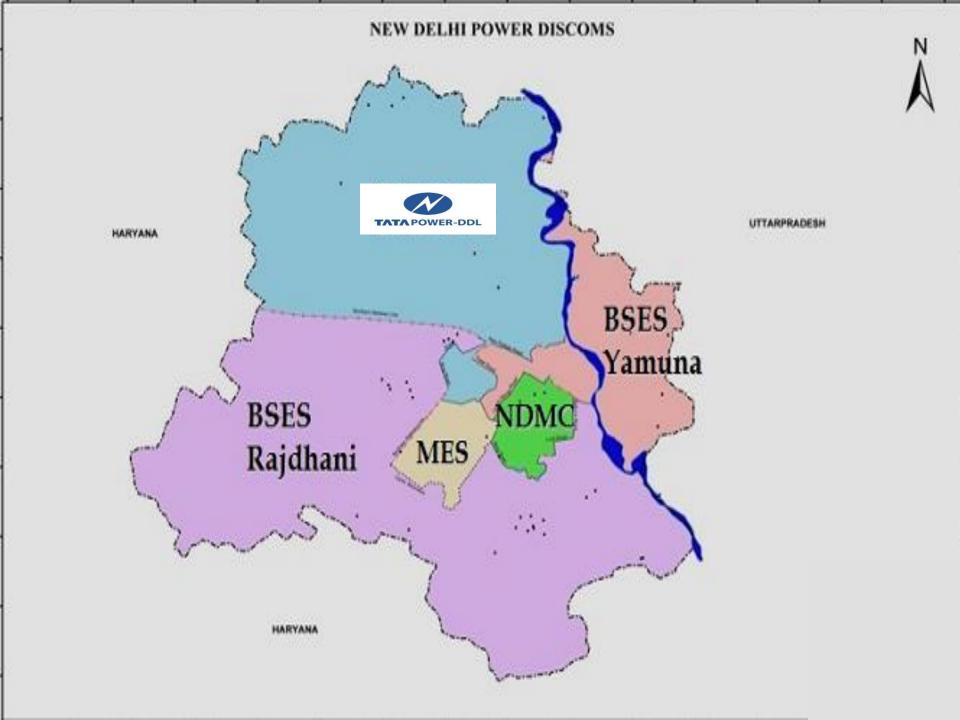
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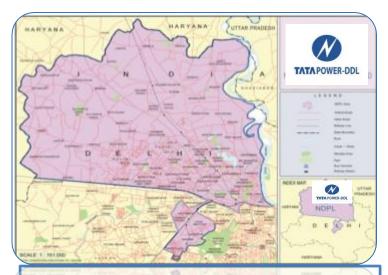
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About TPDDL



Joint Venture of Tata Power Company and Govt. of NCT of Delhi (51: 49)

Licensed for distribution of power in North and North West Delhi

Parameter	FY'15
Turnover	INR 6435 Crs / 1030 USD Mn
Peak Load	1704 MW
Annual energy requirement	8423 MU
Total registered consumers	1.4 Million
Number of employees	3457
Area	510 Sq Kms
Population serviced in Network area (approx)	6 Million

Certifications: ISO 9001, 14001, 27001, 22301; SA 8000; OHSAS 18001 UN Global Compact Reporting

What stands out at TPDDL....



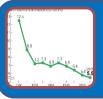
Passion for Technology

adoption — across the

organization(ASAI @ 99.96%)



Proactive Policy Advocacy — Delhi Govt, DERC, Customers, Govt. Of India(Acceptance Rate @ 72%)



Example 2.1 Focused AT&C loss reduction **& Reliability** – organization wide rallying point(AT&C @ 9.87%)



<u>Complaint Mgmt System</u> – fully integrated & single-window.... (Billing Complaint Resolution Time @ 2.9 days)



Participative <u>CSR & AA</u> – across employee segments...(*Beneficiaries* @ 0.2 mn +)



<u>Innovation culture</u> – Ability to take on & meet challenging goals.....(Innovista Entries @ 273)



Customer Delight – Privilege Scheme, Payment Avenues....(CDS @ 84%)



Motivated Employee – Welfare Policies, L& D Initiatives..... (EES @ 79%)





Vision – Mission – Values





Vision & Mission revised in 2013 to focus on Growth & Technology perspectives

- Included "Services" in Vision
- Included "Value for services" & "Technology adoption & Benchmarking" in Mission
- Achievement of Vision & Mission monitored through Balanced Score Card

VISION

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

MISSION

- Supply quality power and deliver value for services
- Maximize and excel in customer services
- Achieve excellence through safety, technology adoption, benchmarking and innovation
- Reach out to communities we operate in
- **T**o meet and exceed stakeholder expectations

I PUDE is a value driven organisation and these values continue to direct the company's growth and business. The six core values underpinning the way we do business are:

INTEGRITY

We must conduct our business fairly, with honesty and transparency. Everything we do must stand the test of public scrutiny

EXCELLENCE

We must constantly strive to achieve the highest possible standards in our day-today work and in the quality of goods and services we provide

UNITY

We must work cohesively with our colleagues across the group and with our customers and partners to build strong relationships based on tolerance, understanding and mutual co-operation

UNDERSTANDING

We must be caring, show respect, compassion and humanity for our colleagues and customers and always work for the benefit of the communities we serve

RESPONSIBILITY

We must continue to be responsible and sensitive to the communities and environments in which we work, always ensuring that what comes from the people goes back to the people many times over

AGILITY

We must work in a speedy and responsive manner and be proactive and innovative in our approach

with you Non-Stop

with you Non-Stop

The Brand in 2002....

What TPDDL had inherited in 2002



AT&C losses: > 50%



 No concept of consumer service and IT interface



 Electricity supply system on the verge of collapse



Lack of performance orientation



'Power to the People' was adopted to convey the acceptance of this challenge

Commitment of taking Delhi out of the dark ages

Making it emerge as a powerful & brighter city belonging to a 21st century city







Rebranding Exercise... in 2015

What TPDDL is in 2015



AT&C losses: 9.87%



 Techno-savvy company of 21st century



• Consumer Delight – 84%



Global Footprints



Power as a non-stop commodity

Constantly evolving

Transforming distribution sector

Competence in replicating rich experience







Rebranding Exercise....In 2015

Since 2002 North & North West Delhi has seen a

Non-Stop Wave of Change

A feeling of joy and productivity backed by quality 24 hours power supply

















- **Social Progress**
- ✓ Quality of Life
- ✓ Technology Adoption
- ✓ Community Empowerment

We, at Tata Power Delhi Distribution Limited, touch the everyday. Powering new age transportation systems like Services, Delhi University, Schools, Homes, Businesses services like Delhi |al Board, Malls, Markets, Streetlights better life where happiness flows Now-Stop.

Our investments in cutting edge distribution technologies a nil outages and record reduction in AT&C loss levels.

Our various CSR initiatives like Vocational Training, Women Literacy Centres and Scholarships to underprivileged students have opened new opportunities for over 3,50,000 beneficiaries by way of Education, Employment and Skill Development. Mobile Dispensaries, RO Water ATMs and Sanitation Facilities also bring about a qualitative change in the communities around us.

For Tata Power-DDL this is a way of life. A commitment endorsed by over 4000 dedicated employees, partners and stakeholders who are passionate about enhancing the quality of life in the National Capital - Delhi.

It's an effort that's Non-Stop.



Step Ahead Nerves of Steel Sky is the Limit Top of the World Out of the Box Pursuit of Excellence

wer Supply

er Say Die

ing Lives Through ble and Quality

Vision 2022











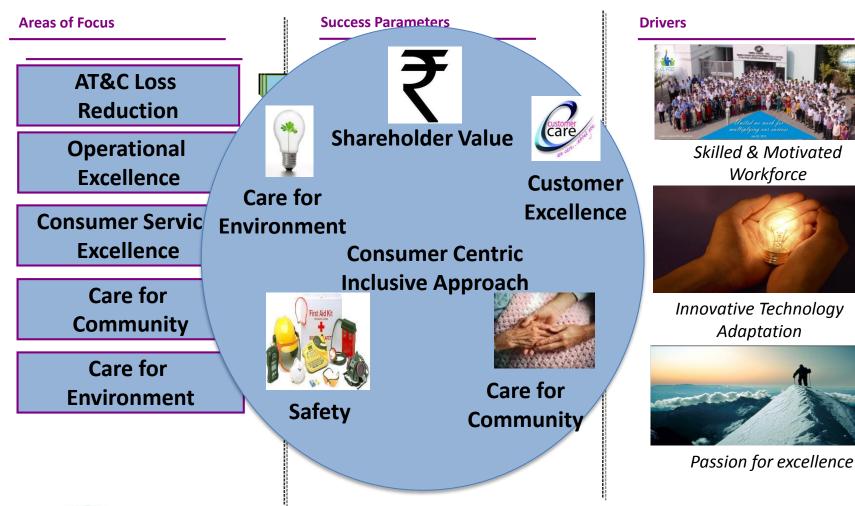








Our Sustainability Philosophy







Stakeholders Requirements

Vision & Strategy; Organization Support; Safety; Competency Enhancement

Uninterrupted power supply; Error-free & fast service- billing % metering; Reasonable Tariff



Cheaper power; Clean Energy; Community Support; Street Lighting; Reliable & Safe Supply

LT Partnership & Business Growth;
Branding

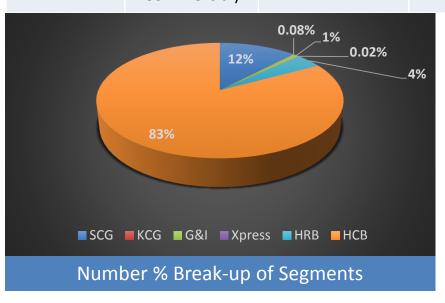
Tata Power: Profitability; Growth; Customer Delight; Positive Brand Image; Service Excellence; Safety; Talent pool

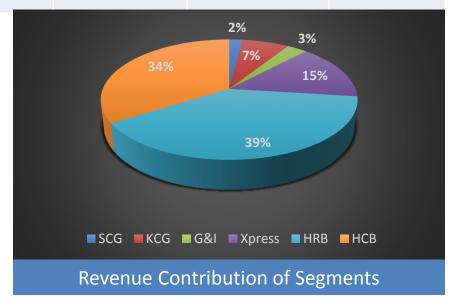
development; Energy Conservation

Delhi Govt: Optimize Tariff; Service excellence; 24x7 Reliable Service; Safety; Consumer Delight

Our Consumers

Macro Segments		High End		O	pinion Influencers	
Micro Segments	Xpress	Key Consumer Group	High Revenue Base	Govt. & Institutional	High Consumer Base	Special Consumer Group
Load & Type	500 KW (Major Industrial & Commercial)	100-499 KW (Industrial & Commercial)	11 – 99 KW (Small Industries)	11 – 99 KW (Eg DJB, DMRC, Banks)	<11 KW (Domestic & Commercial)	Slum Cluster Consumers

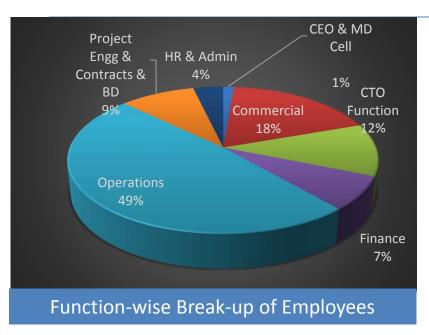


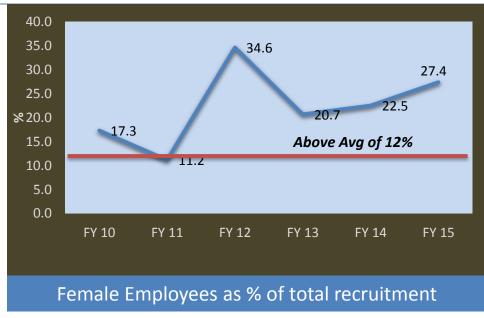




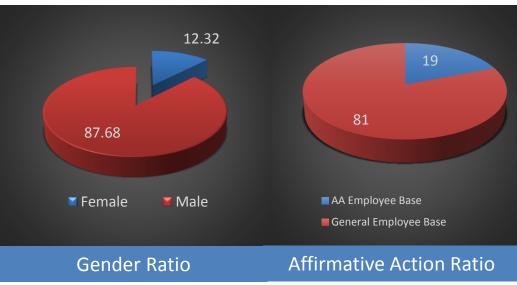


Our Workforce









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TPDDL Turnaround Snapshot

Parameter	Unit	Jul-02	Mar-15	Benchmark Utility
	Operational	Performance		
AT&C Losses	%	53.1	9.87	Torrent Surat- 6
System Reliability – ASAI - Availability Index	%	70	99.55	TPDDL
Transformer Failure Rate	%	11	0.76	TPDDL
Street Light Functionality	%	40	99.18	BESCOM- Bangalore 99.25%
	Consumer Relate	ed Performance		
New Connection Energization Time	Days	51.8	5	Torrent Ahmedabad- 4
Meter Replacement Time	Days	25	4	TPDDL
Provisional Billing	%	15	1.34	TPDDL
Defective Bills	%	6	0.14	TPDDL
Bill Complaint Resolution	Days	45	4	TPDDL
Mean Time to Repair Faults	Hours	11	1.53	CESC- 1.36
Call Center Performance - Service Level	%	-	92	-
Customer Served Per Employee	Nos.	-	417	CPFL Brazil- 1481
Consumer Satisfaction Index (Overall)	%	-	84	BEST- 93%
	Financial Pe	erformance		
Capex Incurred Distribution	Rs. Cr.	1210	5106	-
Revenue (Annualized for FY 03 and FY14)	Rs. Cr.	1156	6503	-
	Oth			-
Consumers	Lacs	7	14.39	-
Employees	Nos.	5600	3457	-

Key Technologies Comparison of Indian Utilities

S.No.	Key Technologies Implemented	TPDDL- Delhi	BRPL- Delhi	BYPL- Delhi	Torrent- Ahmedabad	Torrent- Surat	R-Infra- Mumbai	CESC- Kolkata	BEST- Mumbai
1	Geographical Information System (GIS)	٧	٧	٧				٧	
2	Outage Management System (OMS)	٧	٧	٧	٧	٧	٧	٧	٧
3	Integrated Call Centre	٧	٧	٧	٧	٧	٧	٧	٧
4	SCADA	٧	٧	٧	٧	٧	٧	٧	٧
5	Distribution Management System (DMS)	٧					٧	٧	
6	SAP-BCM	٧	٧	٧	٧	٧	٧	٧	
7	Automated Demand Response (ADR)	٧							
8	Energy Audit of Consumers (ESCO)	٧						٧	
9	Auto Reclosures for New Connection	٧			٧		٧		
10	Advanced Metering Infrastructure (AMI)	٧							
11	Automated Meter Reading (AMR)	٧	٧	٧	٧			٧	
12	Field Force Automation (FFA)	٧					٧		
13	Enterprise Service Bus (ESB)	٧							
14	Integrated Communication Technology	٧						٧	
15	Solar Roof Top/ Net Metering	٧	٧	٧					
16	EV Infrastructure at Grid Stations	٧							
17	MicroGRid Technologies	٧							
18	Business Intelligence/ Data Analytics	٧			٧			٧	
19	Energy Storage Solutions	٧							
20	Mobile Application for Consumers	٧					٧	٧	

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Commercial
Technological Interventions
Human Resources
Excellence
Sustainability





Safety Management System @ TPDDL



Management Commitment on Safety deployment

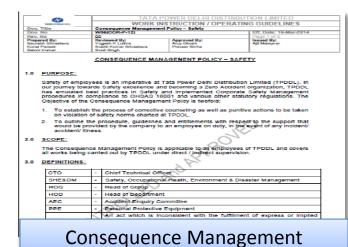








Annual Safety Plan





Training



Centre for Technical and Behavioral Training to enhance safety standards

- Accreditation by Ministry of Power (MoP) and Central Electricity Authority (CEA) for providing training as per the regulations applicable to the workforce in power distribution sector.
- Special emphasis on technical & safety related training
- Supports various training programs as defined in CEA Safety Training Regulations 2010.





Training



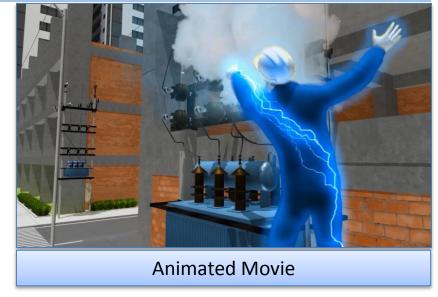






Training









Behavioral Safety



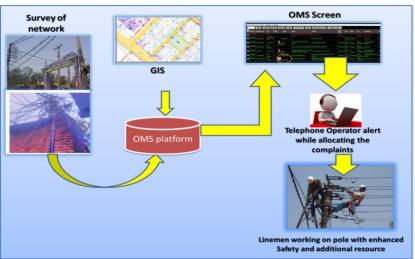


Involving family members



Process Improvement





Risky Pole Tagging & Viewing Process



Locked Out



Life cycle of CAPA sharing & monitoring system

Safety Drives & Night Audits









Public Safety – Creating Awareness



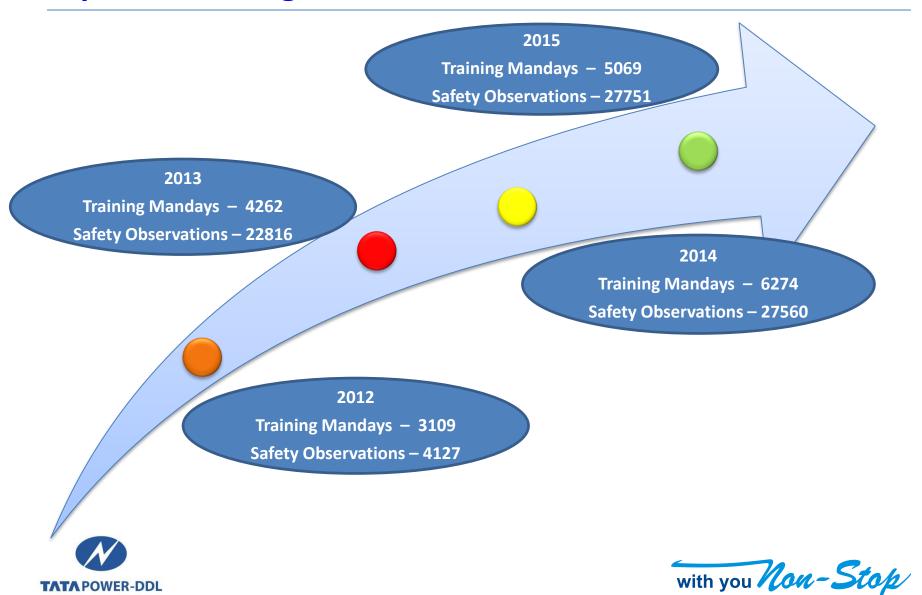
Nukkad Nataks on public Safety







Impact: Training & Observations

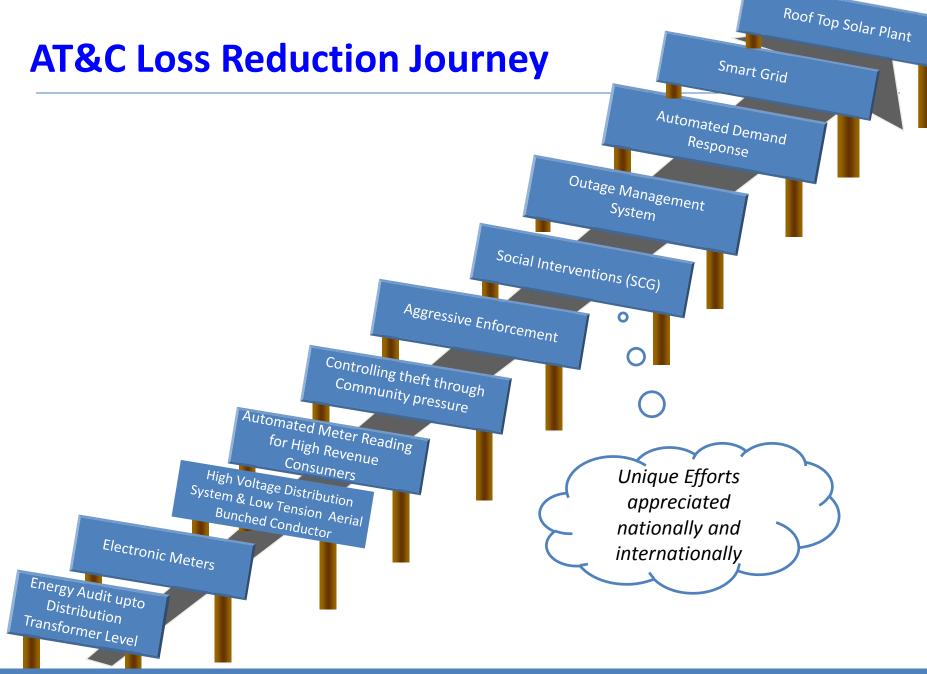


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Initiatives: Reliability Improvement



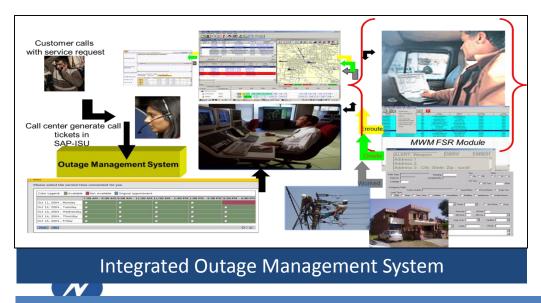




Unmanned Grids

Packaged Substation

SMS Based Fault Management



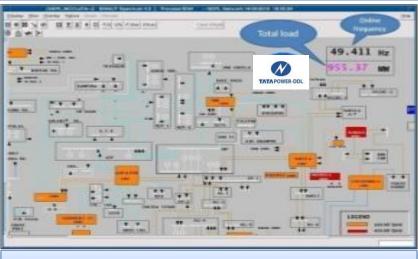


GIS – Mapping all electrical assets and consumers

Initiatives: Reliability Improvement

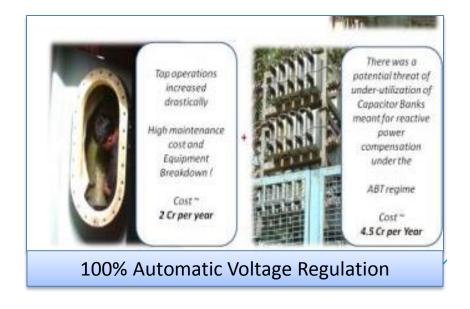


Monitoring of total load through SCADA

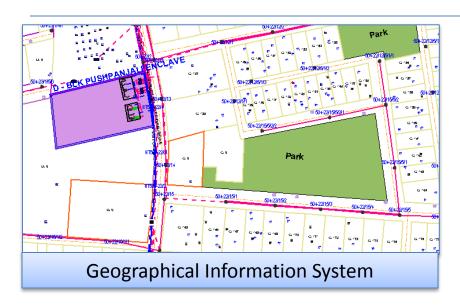


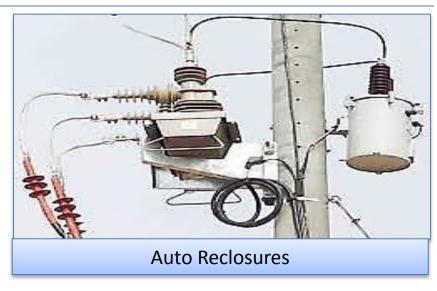
Monitoring of total load through SCADA

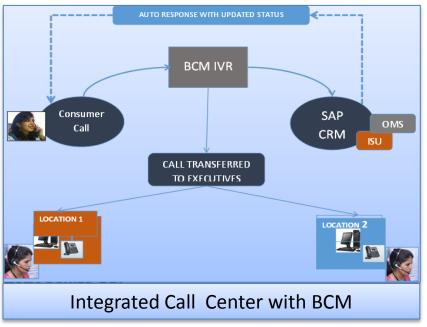




Initiatives: Reliability Improvement









Initiatives: Social Interventions for AT&C reduction

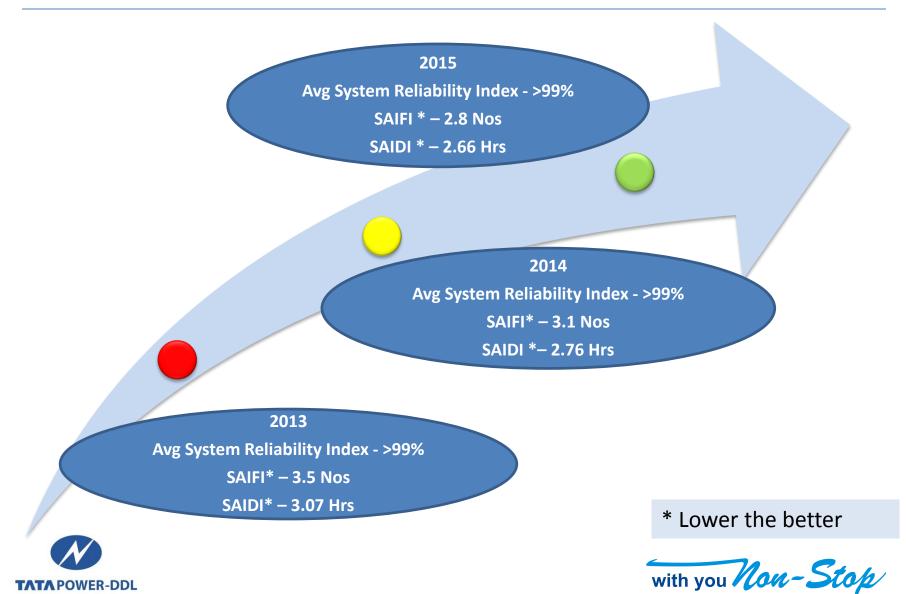


Initiatives for the "Bottom of the Pyramid"

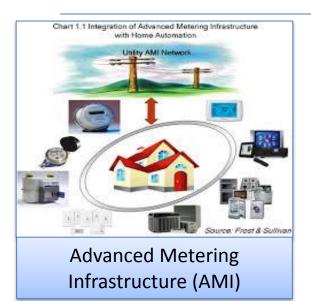
- Collaboration with NGOs awareness creation across TPDDL especially slums
- Settlements of Enforcement cases through PHFs , Special Lok Adalats, Electricity Courts etc.
- Public participation in controlling Theft through Community pressure
- Separate Segment for consumers at Bottom of Pyramid – Special Consumer Group
 - Employment Oriented Vocational Trainings - "Creating Capacity in consumers to pay before asking them to pay"
 - Empowering through SHGs & Water ATMs
- Pay-N-Win schemes

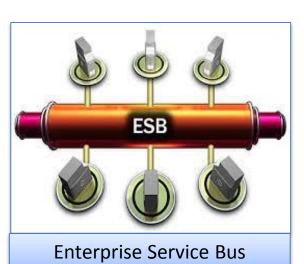
with you Non-Stop

Impact: Reliability Improvement



Future Roadmap: Smart Grid



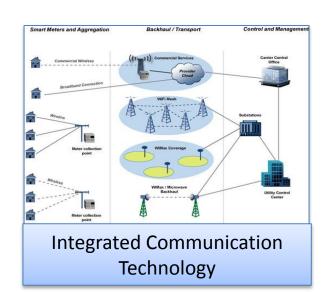




Field Force Automation (FFA)



Business Intelligence /
Data Analytics



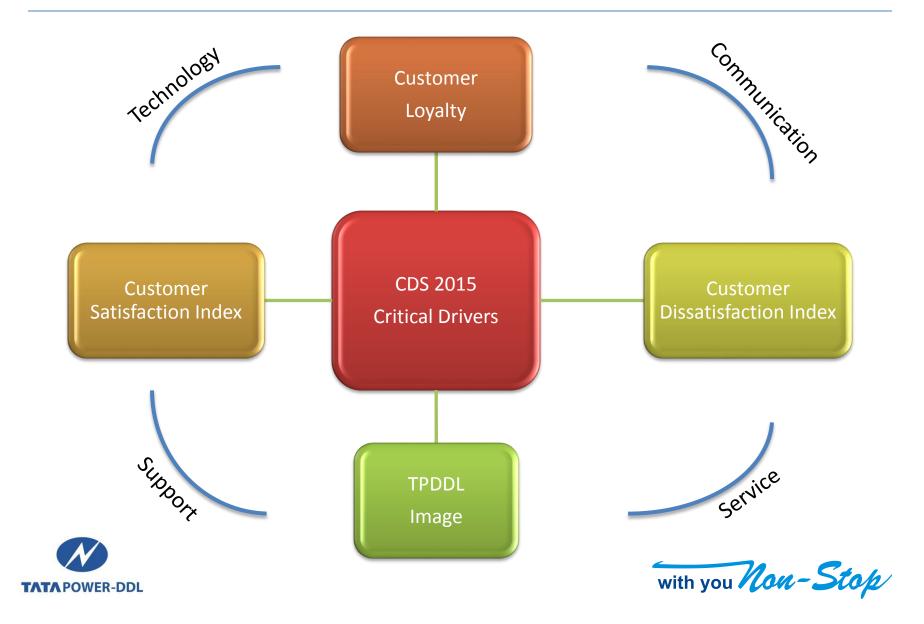
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Safety **Operations Commercial Technological Interventions Human Resources Excellence** Sustainability





Critical Drivers – Customer Delight Survey



Technology Intervention

SAP - ISU

state of art, fully integrated, Billing system for error free reading & billing service

The state of the s

Integrated CRM with BCM facility

for instant customer connect

All Time
Collection Module

ensuring payment collection even at times of network failure

ADR & AMI Project implemented India's first ever integrated
Automated Demand Response (ADR) &
Advanced Metering Infrastructure (AMI) project,
for peak demand management at time of critical
grid stress conditions



Auto Changeover for HT
Customers

for instant power supply restoration

After initial years focus on Operational Technology viz. SCADA, GIS, OMS, DSM... to adoption of technology providing INSTANT Customer Service

Customer Communication Mechanism

Eminent Citizen Meet for Direct Customer Connect (HCB Segment)

MILAP

Annual Customer Meet (all segment)

HUMRAHI and other Outreach Programs

going Hand in Hand with masses

Customer Handbook

all about TPDDL services in form a easy to understand Informative Booklet

Seminar / Workshop /
Audits

on Energy Efficiency / Safety
Safety Audits for Public Installations
Energy Audits for HT customers



After initial years focus on enabling Communication with local representatives (RWAs / IWAs)... to COMMUNITY Participation

Customer Support Initiatives

Unified Sampark Kendra

unified and Integrated Call Centre Number (66404040)

Tata Power – DOL Website (www.tarapower.ddl.com) is now available in lighter version for Mobile Devices

Options Available:

Launch of Mobile Website

light version and easy to use channel



Hotline Facility

for after Office Hour connectivity

HOTLINE PHONE

Dedicated CUG Nos for Client Manager

for instant connectivity

GIS Location Support

Mapping of important TPDDL locations on Google Maps



After initial years focus on enabling basic Connectivity viz. Call Centre / Customer Care Centre / Website / SMS PULL Service... to providing FASTER Connectivity

Customer Service Initiatives / Value Added Services

Transformer Maintenance

for Transformers owned by Customers (KCG / Xpress)

Transformer on Rent

in case of failure of Customer owned Transformer (KCG / Xpress)

Energy Conservation

LED Bulb Scheme / 5 Star AC Scheme / Solar Roof Top Project

Promoting Metered Connection Accidental Life Insurance / Pay N Win scheme for SCG Customers

Promoting E-Services

Incentive Scheme / Lucky Draw for opting E-Services / Online Payment

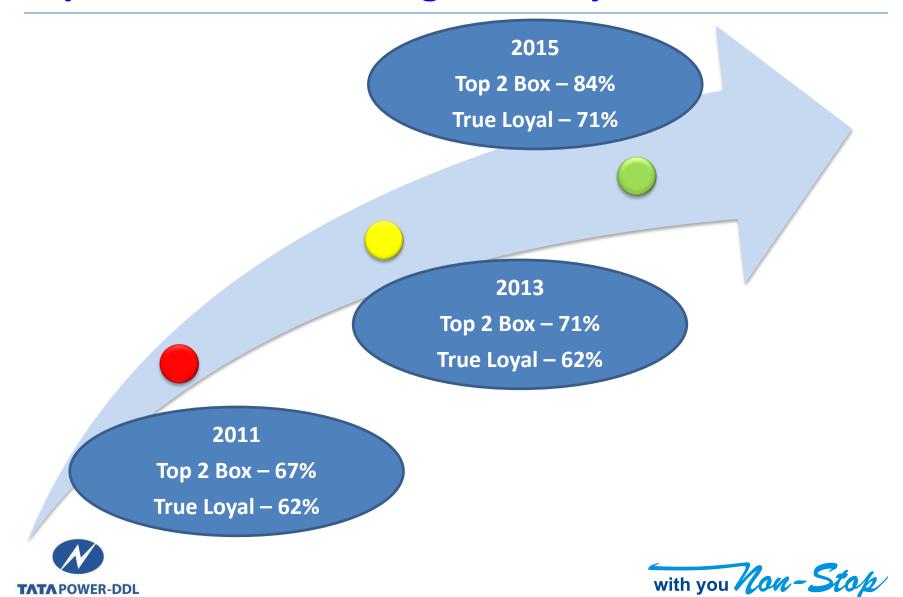


5 ave up to 50% on the cost of a New 5 Star Rated AC Save approx.₹5500 on your Electricity Bill annually.

Be a MINIONE SIX. "GREEN CUSTOMER"
Earn Rewards and Benefits
Opt for 5700 Pyper Bit and 155 Pyment
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After initial years focus on building Customer Relationship... to **PARTNERING more than Electricity**

Impact: Customer Delight Survey Scores



Contents – Major Initiatives

Safety **Operations Commercial Technological Interventions Human Resources Excellence** Sustainability





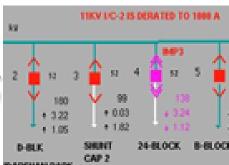
Initiative: Adoption of Integrated Technology



Details of the customer & Customer Count



Information of an Outage



SCADA

Details like repair history, Crew comments, ETR also visible at SAP-CRM



planned in your area during the time details listed below, or unforeseen Faults that might have occurred, or Emergency Shutdown being availed to protect the Distribution Equipment's and Network.

Date Outage Start Time [ActualEstimated] Restoration Date Restoration Date Current 10.04.2013 23.32.00

Outage status was updated on TPDDL website with estimated time of restoration



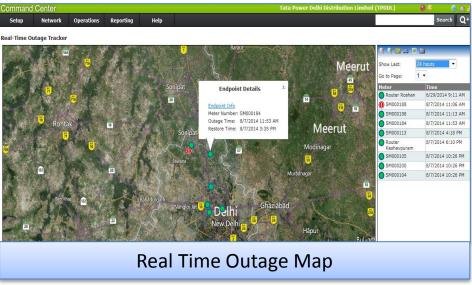
SAP 62CRM





Initiatives: Automated Demand Response





- Allows consumers to make informed decisions by providing highly detailed information; Web based portal
- Provides consumers with greater control over their electricity use when coupled with time-based rates, potentially saving money on their monthly electric bill.
- Allows for faster outage detection and restoration of service
- Real Time Alerts in case of violation of load/PF

Total Sanctioned Load: 322 MW

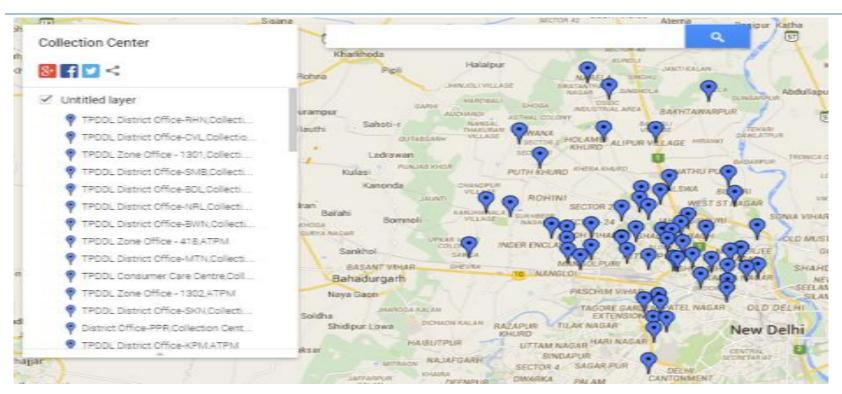
IT Interventions : Mobile Website



- Lighter version of website for mobile devices was launched for consumer convenience.
- The version also has feature to flash unplanned outage messages (for example during major breakdown) to reduce complaints at call center.
- Features involved are Power Outage status,
 Last three Consumption & five payment details, new connection request etc.



IT Interventions: Feature-rich Website



Website-Google integration for various TPDDL's Locations on Map

- Links to locate TPDDL Offices, Consumer Care Centers, TPDDL Bill Payment Centers, Any Time Payment Machines (ATPM), Vocational Training Centers and Women Literacy Centers on Google Maps has been provided to consumers on TPDDL website.
- The system also informs consumers about the "nearest Cash Collection Centers" from his / her CA
 No.
- This information is made available through integration of GIS and Website.

IT Interventions: SMRD





The application is highly secured with domain passwords.



User cannot operate any application or any options like camera, calling, Music etc., because NHCL has locked all the options.



User can operate only NHCL application.



Device has two level security to operate i.e., Through Admin and User.





Future Roadmap: Deployment of Mobility Solutions



Protocol Sheet Entry



Outage Management



Meter Reading & Collection
Application



Revenue Recovery Activity

- To reduce time gap between actual site activity and protocol sheet data entry
- Automated GPS location tagging along with photographs of premise and meter

- Optimization of office & field teams
- Allocation of OMS complaints based on crew location
- Faster closure of OMS orders

- Real time tracking of meter readers
- Meter reading through smart device
- Capture Proof of Bill delivery
- Option to take photos of incidents & assets

- Automated GPS location tagging
- time gap
 between
 actual site
 activity and
 DO related
 data entry





Contents – Major Initiatives

Safety
Operations
Commercial
Technological Interventions
Human Resources
Excellence
Sustainability

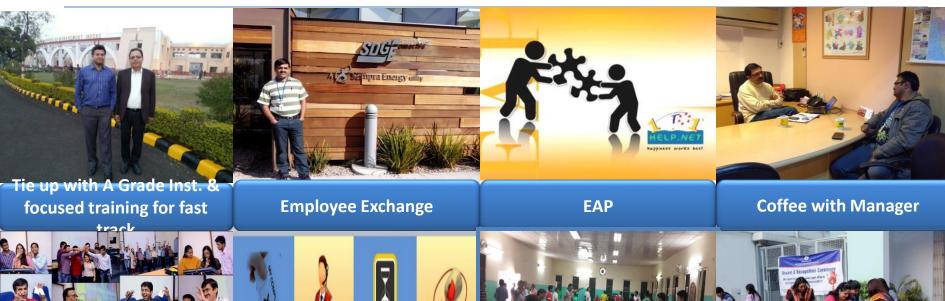




Critical Drivers – Employee Engagement Survey (EES)



Our Employees





Complaint Update Registration Status







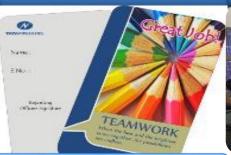


Youth Power Confluence

HR Connect

Sports Club

Cultural Club









WOW! Card Decentralized Training

"HUMRAHI"

"ULLAS"

Our Employees



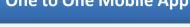






Picnic Grant

Decentralized R&R



BOARD!



DSM Mechanism & Deviations Settlement (ICG, IE Act & Rule for Control Centers) Regulatory Framework for Utilities, their Responsibilities & Accountability Role of Internal Audit in controlling financial irregularities

CSR: Implementation & Value Creation

Strategic Business Advantage of Information Technology Financial Intelligence, Income Tax Rules & Planning

Entrepreneurial Mindset of Silicon Valley Real Time Power Management @ Power System Control









Recruitment on roll:

Employee Ward & BA

employees Employee of the Month Recognition - Nov 2014

Employee of the month



BA Sports Meet

Fast Track Promotion

"Manthan"

Employee Delight - Bonding & Fun @ Work



TATA POWER-DDL

- Various Cultural & Music Clubs formed in decentralized way to provide the employees of TPDDL a holistic platform to exhibit their talent & unique skills in out of work areas
- Manthan Inter Cultural Club Competition
- *Ullas* Employee *Mela*
- Humrahi Street Fete an Initiative for fun@work on lines of Raahgiri
- Engaging Employees through CSR Initiatives
- Sports Meet and Inter Circle Sports Competition
- Organised Tour to Historical places / monuments

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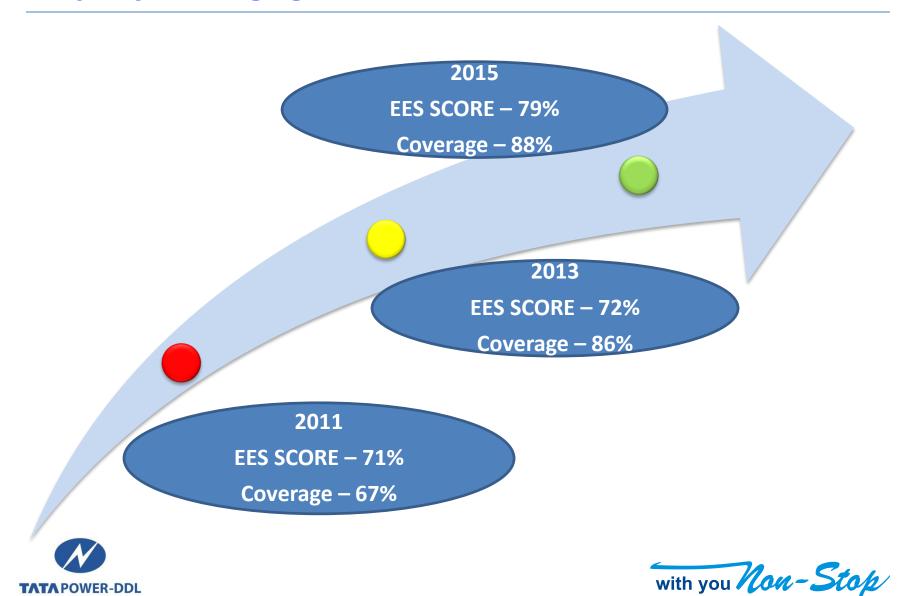
Employee Delight - Youth Power Confluence



- Unique Platform for integration of Strength and Potentials of different generations – Management Team Member and Trainee Batch
- Formation of Teams on Random Selection -Team Leader heading a team of 9-10 Young Professionals.
- Series of Events and Competitions Quiz, B Plan, Sports Event, Art Competition, Talent Show etc.
- Forum for
 - To encourage new ideas and thoughts and identify Potential Young Leaders/ Thinkers
 - New Joinees to showcase their talent and ideas.
 - To Create a Culture of Fun@Work.

with you Non-Stop

Employee Engagement – Overall Results



Initiatives: Business Associates



- Formation of *Distribution Operation & Safety* Excellence Centre (DOSEC) for Safety Training
- Competency Assessment Training as per gap analysis
- Employment opportunity to BA Employees
- BA R&R Ceremonies
- Annual BA sports meet
- Nodal Officers for District & location to ensure BA Compliances and address Grievance
- CSR Initiatives Vocational training, Mobile Dispensary, Drug-de addiction camp, Joint education programme Central Board of Workers Education & participation in world environment day & tree plantation activity
- Medical fitment checks



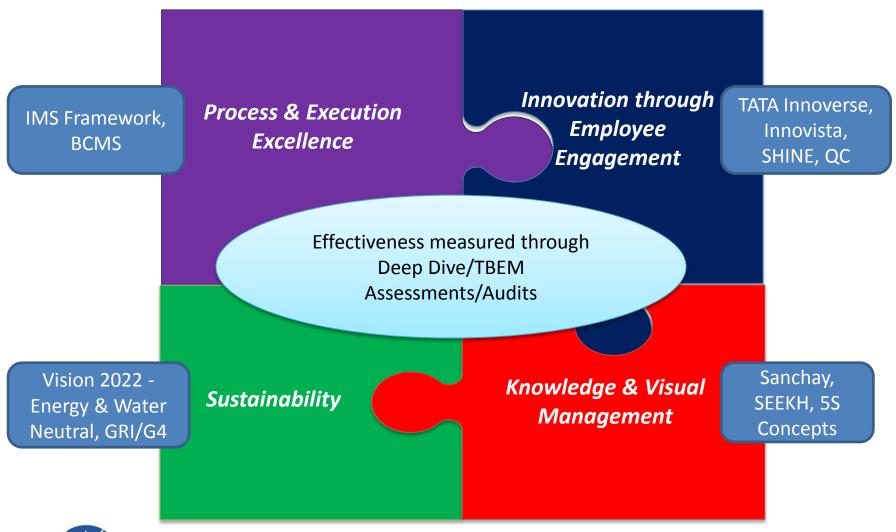
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Safety **Operations Commercial Technological Interventions Human Resources Excellence** Sustainability





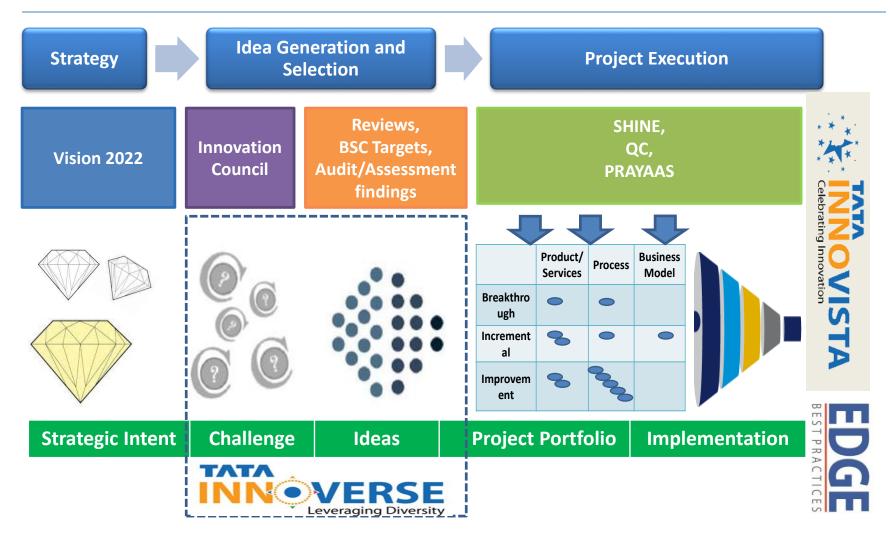
Aligning with Strategic Intent







Innovation Management @ TPDDL





- Guided by Innovation Council
- Supported by Collaborations



Strategic Initiatives – Business Services

- Develop business model for distributed energy resources with emphasis on solar (Study with E3 & Grant by USTDA)
- Advocacy for Finalization of Delhi Roof Top Solar Policy

Roof Top Solar

- Identification of solar potential of 400 MW in TPDDL area
- Installation of Roof-top solar plants in consumer premises

DSM

- Tie up with BEE & EESL for promotion of Energy Efficient Equipment
- Roll Out of DELP LED Distribution Scheme for TPDDL Customers

Asset Sweating

- Lease of 30+ Substation Sites for Telecom Infrastructure
- Installation of 10 E-Charging stations for E Vehicles

ESCO

 Marketing with KCG & Xpress Customers like Cold Storage, Flour Mills and Rice Mills etc. for ESCO Services





Demand Side Management









2012 Bachat Lamp Yojana

2012 Promotion of Star Rated Appliances

2016

2013 Sun heat reflect paint

2013 Appliance Replacement Programme



2014 LED Bulbs for TPDDL consumers

DSM Based Efficient Lighting programme (DELP)

AC Replacement Scheme

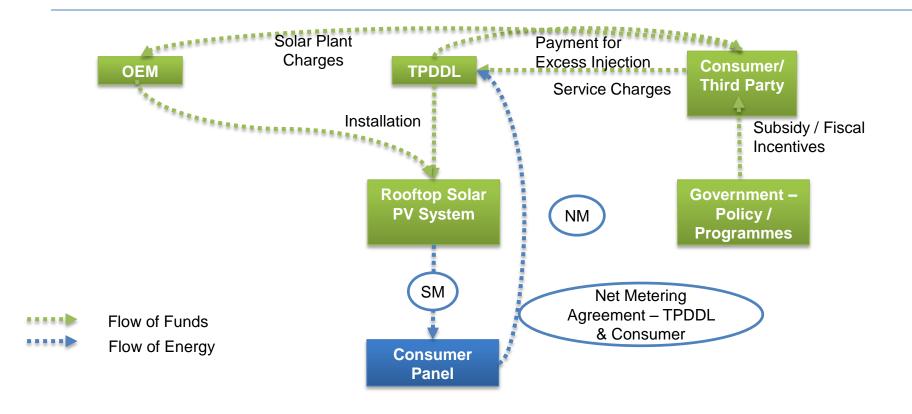
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TPDDL's Solar Journey



- TPDDL pioneered in the 'Demonstration Programme on Tail End Grid Connected Solar Power Plants', an initiative of Ministry of New and Renewable Energy (MNRE), Govt. of India.
- Commissioned eight Solar Plants under this prestigious program
- TPDDL has fifteen Solar Projects in its own premises with capacity 1.65 MW
- One Mega Watt Class of Grid connected Solar Plant at its Central Stores at Keshavpuram, which is a unique project where dual utilization of land has been achieved by creating a roof top solar plant over a fully functioning open material store.
- TPDDL has set up twelve 1 KW capacity standalone Solar lighting system in RWA Porta Cabins in New Delhi Municipal Corporation area under "My Delhi I Care" scheme of Govt. of Delhi.

Future Roadmap: Rooftop for Consumers



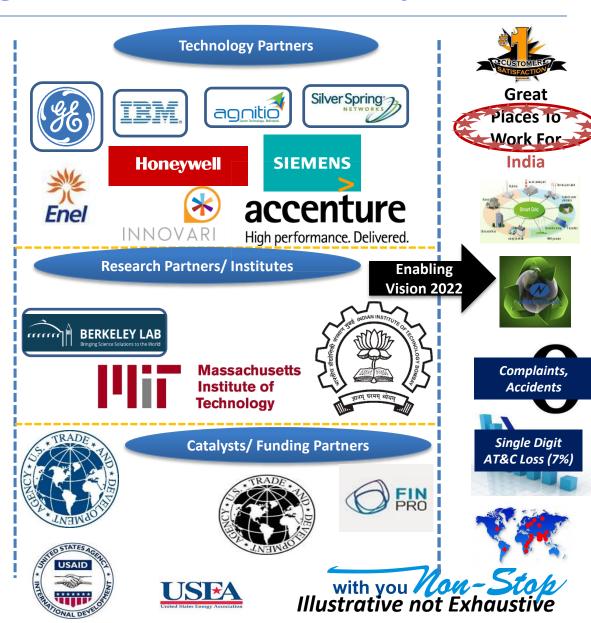
- Highest Solar Grading as System Integrator and Project Developer received from ICRA.
- Empanelled as first Utility Channel Partner with Ministry of New & Renewable Energy, Gol
- TPDDL Initiative for providing Value Added Services to consumers on Solar Project received DERC
 Approval
- Three Turnkey Solar Project Installation Agencies with Highest Grading have been empanelled
- Association for framing BIS Standard for smart meter(whole current) to be used in Solar Projects.

Innovation through Collaborations...Why

Philosophy of Collaboration

- Access to latest technologies in developed markets
- Access to world class R&D facilities
- Customization of products to suit local contexts and regulatory environment
- IT Experience/ Academic Experience Convergence with Domain Experience
- New Business Opportunities
- Access to Funds for establishing Proof of Concept





TPDDL's Collaboration with GIUNC Members



ONCO

Dallas, TX USA

Advanced metering system implementation, integration and PMO, MDM, Business Analytics, Security, Smart Meter Texas

Optimized energy value chain minimizing need for new fossil generation units, AMR-to-AMI strategic transition,

advanced feeder modeling ,

odeling



Paris, France

Pepco Holdings Inc

Washington, DC USA

IUN blueprint,

management,

notification, AMI

outage

Sensing & control, asset optimization for fault prevention, smart grid for Co2 reduction, AMM & communications network



Arnhem, The Netherlands

Organization-wide smart grid vision and strategy, smart grid PMO, fraud detection



Copenhagen, Denmark VPP, EDISON, DMS integration, CBM



Düsseldorf, Germany

Efficiency, Renewables Integration, Grid Quality, Intelligent Substation

Tokyo, Japan

Low carbon

Rooftop PV.

AMI, Storage,

Grid Reliability

generation, EVs.

Efficient buildings,



A Sempra Energy utility®

San Diego, CA USA

Smart grid system implementation, condition based maintenance, OMS/DMS, smart grid communication strategy



Houston, TX USA

Advanced metering system implementation, integration and PMO, MDM and HAN, Smart Meter Texas



Campinas, Brazil

Smart Metering Center, loss reduction, communications



New Delhi, India Smart grid

governance structure, smart grid roadmap Benchmarking



Nuclear generation, Jeju test bed, Renewable integration, EVs, Grid automation



Queanbeyan, Australia

IN strategy and customized IN blueprint, organizational impact of smart grid, IN Research & Demonstration Center

Major Areas for Collaboration











Home Automation Products

Roof Top Generation

Microgrid

Automated Demand Response

Demand Side Management

ESCO

Smart Meters

E-charging

Smart Grid Lab

with you Non-Stop

Contents – Major Initiatives

Safety **Operations Commercial Technological Interventions Finance Human Resources Excellence** Sustainability





Addressing Sustainability – Triple Bottom Line

Introduced "Social" perspective in BSC to ensure focus on Sustainability: "Drive Sustainable Community Development & Environment Consciousness"



People (Social)

- Education: Women Literacy, Scholarships to SC/ST students, Remedial classes
- Employability:Vocational Training
- Entrepreneurship: SHG formation, Water ATMs & training
- Health: Drug Deaddiction camps, Mobile dispensaries, RO water plants



Planet (Environment)

- Environment Management: Energy conservation, Water harvesting, RPO, Tree Plantation
- Pollution Prevention:
 Car Pool, Promoting
 Climate
 Consciousness, ISO
 14001



Profit (Economic)

- Cost Savings: Energy Management, Demand Side Management,
- R&D: Solar Rooftop Power, Smart Grid, FSCO

Areas of Focus

Women Literacy Centres

- Health Awareness
- Advertisement of drug de addiction camps
- SHG formation & training
- Handling operation of RO water plants
- Bill Distribution, Arrears collection work & Brand Ambassadors

Mobile Dispensary

- Locations identified in consultation with WLCs
- Health Check up of the students registered for tutorial classes
- Regular health Check-ups at orphanages
- Health-Check-up camps organized for IWAs
- Covers BA employees from various office locations

Drug De-addiction camps

- During camps awareness about VT & WLC centers
- Extended benefits to beneficiaries of near by night shelters

Vocational Training Program

- SHG formation
- Self Defense Training
- Tie-Up with IWA's for placements/ sponsorships
- Placement Linkages with FMCG brands e.g. West Side, KFC, CCD, Pizza Hut

Education

- Scholarship to SC/ST students
- Eligible for Vocational Trainings
- Support for SC/ST students ITI / Diploma / professional courses
- Health check ups of students
- Educational support in Govt school under our AA scheme.

Initiatives: Corporate Social Responsibility









Impact: Change in Mindset of Slum Residents





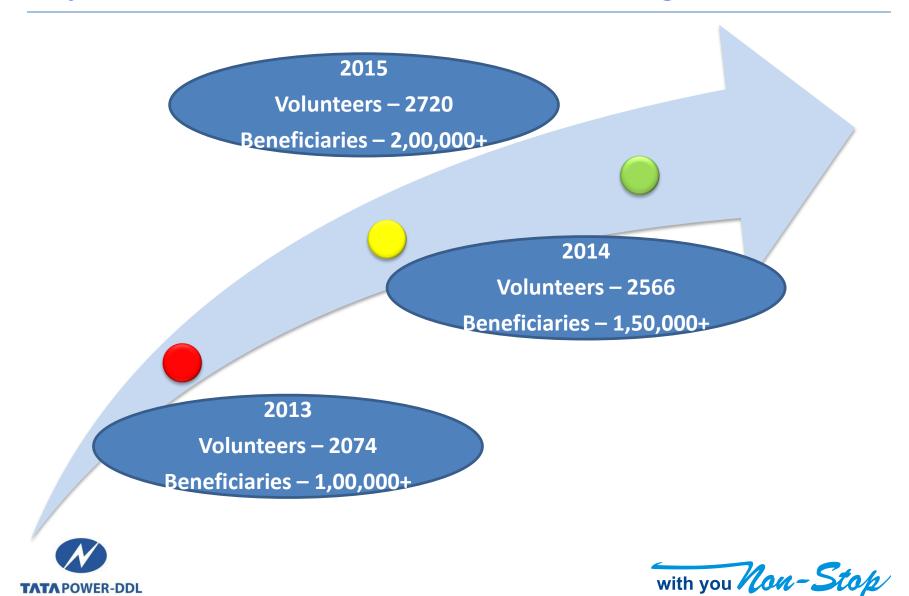




Pay-n-Win for JJ Clusters



Impact: Beneficiaries & Volunteering



Leveraging Capabilities: Business Development

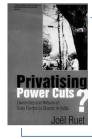
Objectives of Business Development:

- Leveraging Core Strength
- Revenue Generation
- Business Acquisition
- Employee Engagement

Shaping Tata Power's Growth Plan

- Footprints in Nigeria
- Helped TPC with footprint in Nigeria EKO DISCOM through TATA POWER International Pte Ltd
- Entrant into DF model
- Increase foot print in Africa
- Qualifying TPC in the EOI stage for Guinea in the PPP framework.
- Signing MOU for green field project development in Kenya
- Empanelment in Egypt for Solar Business
- Increase Footprint in Transmission Eco System
- Helped TATA POWER in signing MOU with RECPTCL for preparing DPR & feasibility report for Transmission Corridor.

Target Market Segments



Distribution Opportunities in Domestic / International Market



Investment Projects Technology Projects (SCADA / IT / ERP / AMI)



Implementation services for Technology Based Projects - IT / AMR / GIS / ERP etc.



Revenue Sharing / Transaction based Model



Capacity Building



Functional Consultancy / Distribution Solution





Leveraging Capabilities – Areas of Expertise

Project Management & Consultancy

- Business Process Re-engineering
- IT Initiatives
- Smart Metering Solutions
- GIS Implementation
- Demand Side Management and Energy Efficiency

Technical Advisory

- SCADA & Automation
- Smart Grid
- Network Planning, System Improvement and O&M Services
- Loss Reduction Services
- Power Generation Renewable and Non- Renewable

IT Services

- Consumer Relationship Management
- Revenue Management
- AMR and Data Analysis
- Energy Audit Application
- Performance Management

Managed Services

- Technical & Management Strategy Services
- Open Access
- Capacity Building & Change Management
- Commercial Back Office for a Circle/Town/Utility
- Business Process Outsourcing

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Power Sector in India

Delhi Reforms - 2002

About TPDDL

Strategic Challenges

Transformational Journey - Major Initiatives

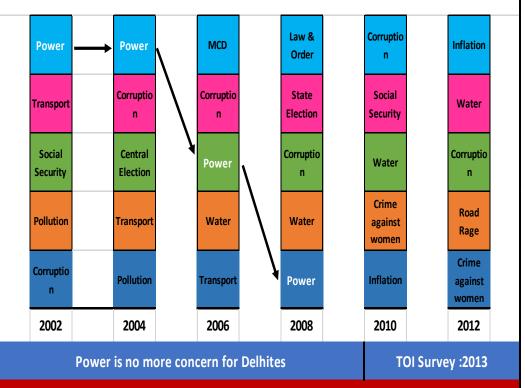
Recognitions



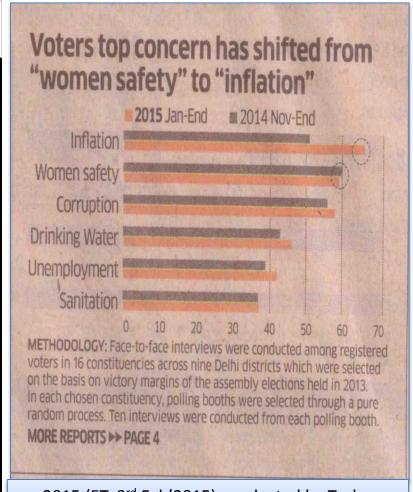


Power Supply No More An Issue... Says Delhi

Power Supply No more Issue ... Says Delhi



As per the Delhi Human Development report 2013" TPDDL 's Service has been rated Second to DMRC



2015 (ET: 3rd Feb'2015) conducted by Taylor Nelson Sofres

with you Non-Stop

Key Recognitions



"Best Performing Private Discom"

Power Line Awards
(2013)



Most Innovative DISCOM (2014)



"Utility of the Year" Asian Power Awards (2006-2014)



"National Award for Meritorious Performance" (2004-05, 05-06, 07-08, 08-09, 12-13)



"Policy Advocacy Award"
Edison Electric Institute, USA
(2009)



"Best Performing Utility- Urban" Enertia Power Awards (2012)



Innovation for India Awards (2014)



"Technology Award (OMS)"
Asian Power Awards
(2012)



"IT Innovation Award (OMS)" NASCOM & CNBC TV 18 (2012)



"Safety Innovation Award" Institution of Engineers (2009 - 14)



Annual Greentech CSR Award (2015)



"Innovative Implementation of GIS"

Edison Electric Institute, USA

(2008)



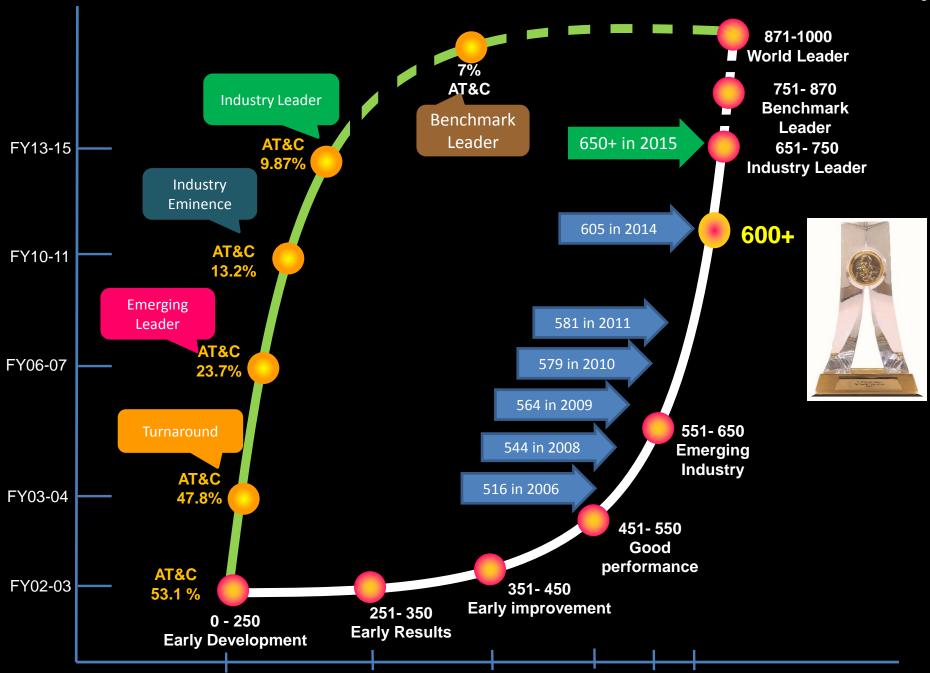
"Safety Convention Award" (2009-2014)



"CII Innovation Awards" (2014)









Thank You



