

# Powering Business Empowering People

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## **Our Vision**

To be the most trusted and admired provider of reliable, competitive and sustainable power and services, using technology and innovative solutions, and be the utility of choice for all stakeholders.

## From CEO's Desk

Imbibing the ethos of TATA Group, TATA Power-DDL since inception, in the year 2002, undertook a successful and highly appreciated transformation journey to revamp the power sector in Delhi. Reliable and quality power supply coupled with excellent customer services and deployment of the latest technological have helped us to transform customer service delivery mechanism.

Leveraging the learning and rich experience gained over the past 16 glorious years to best use, TATA Power-DDL now offers valueadded services and end-to-end solutions in areas of IT and OT Consultancy & Implementation, Project Management Service, Distribution Infrastructure/Process Improvement, Revenue Management System, Capacity Building, Energy Management Services and Solar Implementation to electric utilities both within the country as well as on international terrain, and also handhold utilities for adopting and deploying state-of-the-art technologies.

Today, TATA Power-DDL is working with more than 60 clients across 10 countries for improving the business processes and deployment of the latest technologies in the power distribution sector. We have also collaborated with a number of academia & industry partners to offer customized solutions to make our clients future ready.

Electricity distribution sector is the most important block in the infrastructure value chain and TATA Power-DDL's efforts are aimed at improving the healthiness of these electric utilities. Our efforts and results demonstrate that our vision of being the trusted and admired service provider is not mere words, but a way of life at TATA Power-DDL.



## Sanjay Banga CEO TATA Power Delhi Distribution Limited



## Our Parent Company: TATA POWER since 1915

A company belonging to the world-renowned TATA Group, India's largest private power utility.





2.5 Million Consumers (Pan-India)



The Company's growth plans include steady capacity addition year-on-year, taking its current installed capacity to

22,500 MW and consumer base to 5.4 million by 2025

## Category 'l' Power Trading License

30% stake in Indonesian Coal Mines Captive coal blocks in Jharkhand & Odisha

### Leader in Total Power Management

- Commissioned India's first 4,000 MW Ultra Mega Power Project in Mundra based on super-critical technology
- Touch-screen based Distributed Digital Control and Energy Management Systems
- Computerised Grid Control and Energy Management Systems
- 220 KV Transmission Lines on Four-Circuit Towers
- 220 KV Underground Cable Transmission Network
- Flue Gas Desulphurisation plant using sea water
- Operators Training Simulators for 150 MW, 500MW
- 150 MW Reversible Hydro Pumped Storage Unit

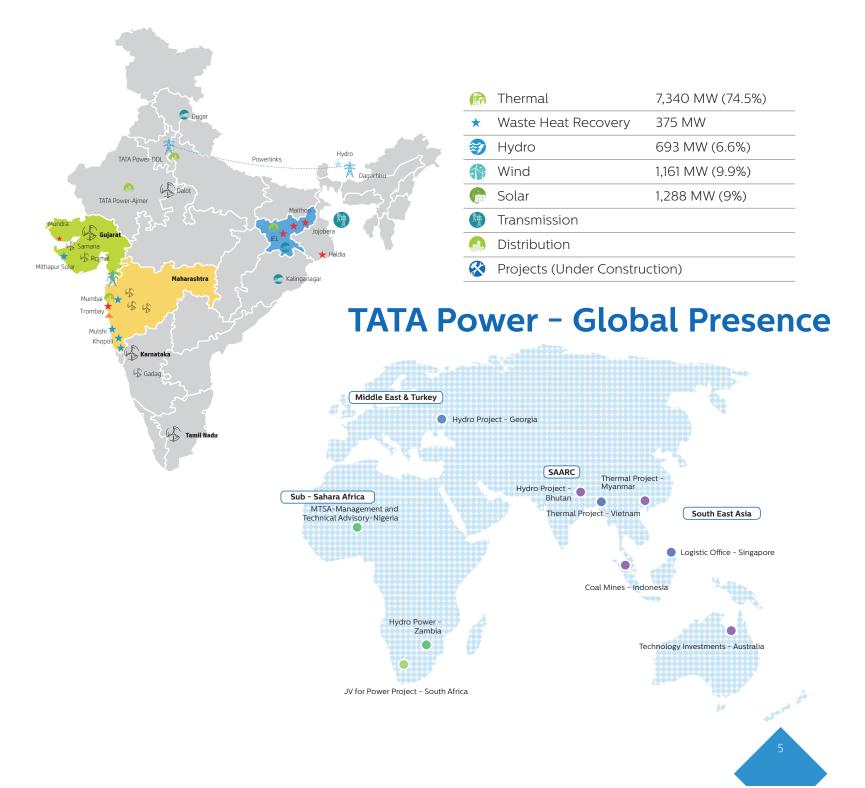
## **Retail Power Distribution**





## **TATA Power - India Presence**

TATA Power has a pan-India presence with Operational generation capacity of 10,857 MW.



# TATA POWER-DDL

#### TATA Power Delhi Distribution Limited – Aspiring Excellence

TATA Power Delhi Distribution Limited (TATA Power-DDL), a 51:49 joint venture of "The TATA Power Company Limited" (TATA Power) and the "Government of NCT of Delhi" (GNCTD), was formed on 1st July 2002, earlier known as North Delhi Power Ltd. (NDPL) as an outcome of the Power Sector Reforms Process in Delhi. TATA Power-DDL has to its credit the distinction of being, the first success story of the Power Sector Reforms in India under a Public Private Partnership framework.

TATA Power-DDL is an ISO 9001, ISO 14001, ISO 22301, ISO 27001, ISO 31000, ISO 50001, OHSAS 18001, SA 8000 and Capability Maturity Model Integration (CMMI) Level 3 certified company distributing power to a populace of 7 million spread over 510 sq. km. Driven by the expertise of over 3200 dedicated and experienced human resources, TATA Power-DDL has created benchmarks in commercial and operational service delivery. The vast and vibrant intellectual capital resource enables TATA Power-DDL to deliver the best in every facet of the business. TATA Power-DDL has reduced the Aggregate Technical and Commercial Loss from 53.1% in July 2002 to 8.40% as of March 2018 and has successfully transformed an ailing utility into a consumer-centric organization through various initiatives.

TATA Power-DDL is moving ahead with the objective of transforming itself into a Utility of the future by adapting the global trends of Going Green, E-Mobility, Smart Utility, Home Automation, Self-Healing System, Battery Based Storage System etc. TATA Power-DDL is among the very few utilities worldwide to implement ADMS technology suite with successful integration with other operational technology.

TATA

Apart from setting various benchmarks in Delhi, TATA Power-DDL is also serving as a Consultant, Associate, and Advisor to various Electrical Utilities across the globe. Currently, TATA Power-DDL is touching the lives more than 150 million consumers spread across 20 states in India and over 5 million consumers in 10 countries.

## **Capabilities & Accomplishments**

Front-Runner in Many First

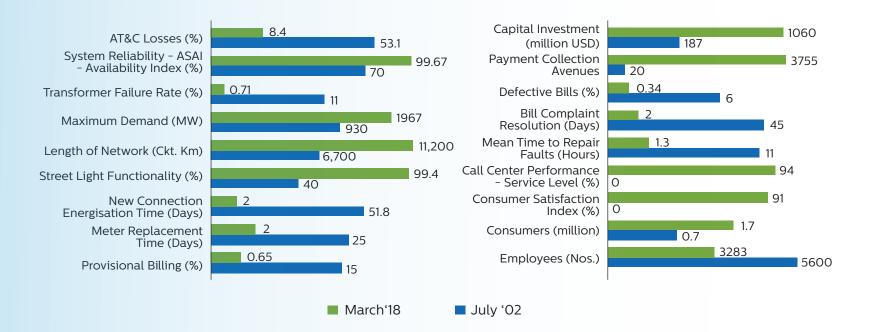


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## TATA Power Delhi Distribution Limited Performance Turn-around Journey

Loss Reduction Trajectory from 2002-03 to 2017-18 @ TATA Power-DDL







## National

Expanding Geographies

#### **JAMMU & KASHMIR**

- Project Implementation Agency for Strengthening of Distribution Network (IPDS & RAPDRP), Smart Metering and Fast track Metering
- SCADA Consultancy (RAPDRP)

#### CHANDIGARH

- Smart Grid Pilot (NSGM)
- Project Management of Distribution Network (3 Assignments)
- LED Street Lights Project Management and Annual Maintenance
- IT Consultancy (R- APDRP)

#### PUNJAB

- LED Street Lights Project
- Management and Annual Maintenance SCADA Consultancy (RAPDRP)

#### DELHI

- · LED Street Lights Project Management and Annual Maintenance (North MCD)
- 508 KWp Rooftop Solar at Rashtrapati Bhawan
- Formulating Strategy/ framework for Open Access & renewable integration
- Feasibility Study & Installation of twelve 1 KWp Solar plant at NDMC

#### HARYANA

- Supply, Implement, Operate and maintain Power Portfolio Solution
- **DPR Preparation & Project** Management (NEF)
- AMI Advisory for DHBVN (World Bank) Consultancy for Distribution Retail & Supply Functions
- IT Consultancy (RAPDRP and Non-RAPDRP)
- SCADA Consultancy (RAPDRP)
- Establish Monitoring and Evaluation Framework for Agricultural Consumers GOA
- Consultancy on Solar PV System to DCRUST. Sonepat.
- Diagnostic study for Energy Audit, Load Management and Power procurement Practices
- DPR Preparation and Load Flow Study for Kurukshetra, Karnal and Kaitahal

#### RAJASTHAN

- LED Street Lights Project Management and Annual Maintenance
- Renewable Energy Integration for RREC (ADB)

With Increasing impetus from GoI in terms of several power sector reform initiatives, timely & qualitatively completion of capital investment projects is becoming a priority. With this background, TATA Power-DDL is providing services in more than 20 states across the nation with project outlay of 3.5 billion USD

#### WEST BENGAL

DPR Preparation & Project Management (DDUGJY & IPDS)

#### **TRIPURA**

LED Street Lights – Project Management and Annual Maintenance

#### MANIPUR

Capacity Building on O&M

#### MEGHALAYA

Capacity Building NER Power Sector Improvement Project

#### **ODISHA**

- Project Management for Puri (OPTCL)
- IT Consultancy (RAPDRP and IPDS)
- SCADA Consultancy (RAPDRP)

#### JHARKHAND

- Project Management (DDUGJY)
- LED Street Lights Project Management and Annual Maintenance
- SCADA/DMS Consultancy (RAPDRP and JSBAY)
- IT Project Management Unit
- SMAST & Smart Grid Roadmap (JUSNL)

#### **ARUNACHAL PRADESH**

Rural electrification of 1058 off-grid villages

#### ASSAM

**Business Process Re-Engineering** 

- MAHARASHTRA
- Advisory Services for GIS & CRM Implementation (TATA Power)

#### MADHYA PRADESH

- **DPR Preparation & Project**

### Gujarat

- IT Implementation Works (RAPDRP
- Part A) **DPR Preparation & Project**
- Management (RAPDRP)
- **DPR Preparation & Project** Management (NEF, DDUGJY and
- LED Street Lights Project
- Management and Annual
- IT Consultancy (RAPDRP & IPDS)

- Advisory Services for Performance Improvement of CSEB successor Entities Uttar Pradesh
  - Sarthi Energy Audit & Analysis
  - and IT Support Services (5 discoms)
  - **Project Management Services** (Saubhagaya) for MVVNL
  - **DPR Preparation & Project** Management (DDUGJY and IPDS) for PVVNI
  - Project Management for 21 districts (RGGVY) for DVVNL AMR Reading, Billing & Data
  - Analysis on Cloud PVVNL Project Management (RAPDRP) for
  - Lucknow & Ferozabad Town **DPR** Preparation and Project Management for Distribution
  - Networks (DVVNL) SCADA Consultancy (RAPDRP)
  - Call Center and consumer care centre consultancy for
  - deployment of CRM **KARNATAKA** 
    - **Project Management Services** (DDUGJY and IPDS) for all 5
    - DISCOMs

### ANDHRA PRADESH

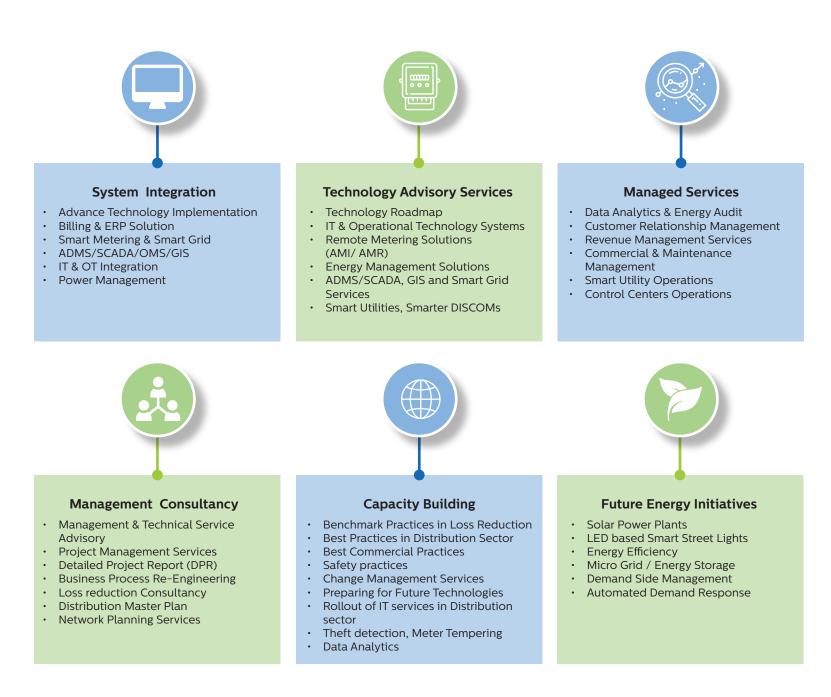
- IT & Smart Grid Roadmap
- **CHHATTISGARH** IPDS) Maintenance



## Management (DDUGJY and IPDS)

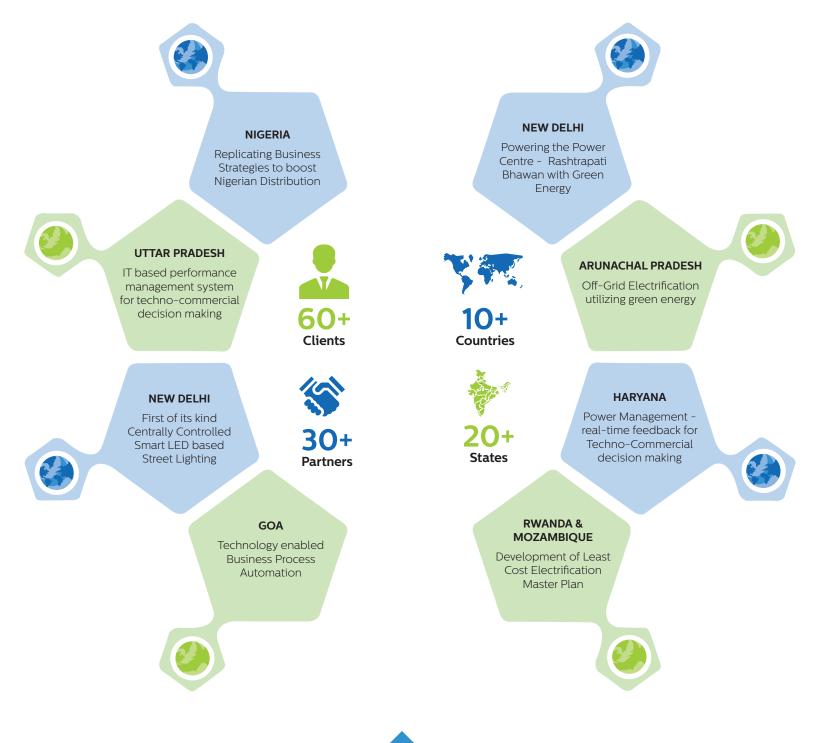
## **Business Portfolio & Services**

Diversified offerings to meet your future business challenges



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## Landmarks in Multiple Geographies



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## **Going Global**

#### BANGLADESH

To evaluate system reliability assessment techniques and develop improved practices for data acquisition and distribution network protection system

#### **KINGDOM OF ESWATINI**

Operational Efficiency study on the Swaziland Electricity Company (SEC)

#### **KURDISTAN**

Advisory Services for System Improvement, Due-Diligence, Bid Management & Financing Plan, Preparation of Business Plan and Technical and Commercial Proposal Management

#### MAURITIUS

Advisory services to examine the current organizational structure of the Transmission and Distribution by providing practical recommendations for performance improvement

#### MOZAMBIQUE

Preparation of Least Cost Geospatial Universal Electrification Plan

### NIGERIA

#### ABUJA

Advisory services on Corporate Restructuring of generation and distribution sub-sectors of the Power Holding Company of Nigeria (PHCN)

#### BENIN

Technical & Management Service provider for transaction advisory, pre and postacquisition support of privatized distribution company of Benin.

#### **EKO**

Technical & Management Service Provider for uplifting the overall performance of EKO Discom by handholding the Discom to take interventions for reducing aggregate technical, commercial and collection losses and improving operational efficiency. JOS

Technical & Management Strategy Service Provider for the overall objective of improving performance of Jos Discom

#### **KADUNA**

Technical & Management Service provider for uplifting the overall performance of Kaduna Discom by handholding the Discom to take interventions for reduction of losses and improving operational efficiencies

#### KANO

Technical & Management Service Provider for the overall objective of improving performance of Kano Discom by framing model to reduction of losses and improving operational efficiencies

#### **RWANDA**

Development of Strategic National Electrification Plan and Investment analysis to undertake grid connected and off grid projects to improve Energy Access for Energy Development Corporation Limited.

#### SIERRA LEONE

Project Management and Operation Support for Advanced Metering Infrastructure implementation

## *information and operational technologies.* Service

TATA Power-DDL is expanding its services in the international

sphere and is doing significant work in the African and

Asian Market. TATA Power-DDL has been able to provide

synergistic value to utilities undergoing reforms process in

their countries and those who want to upgrade themselves

to become smarter utility of the future by implementing the

#### SOUTH ASIA

Advanced Metering Infrastructure (AMI) and Analytics Guidance Study for South Asian Power Distribution Utilities

#### UGANDA

Study on Commercial and Distribution operations like New Customer connections, system losses, distribution operation & maintenance costs, and quality & reliability of services of UMEME for Electricity Regulatory Authority,

Study on Loss Reduction Programme for UMEME

#### YEMEN

Capacity building in assessment of losses, identification of their sources and evaluation and implementation of loss reduction measures.

#### ZANZIBAR

Capacity Building program on best practices in Operation & Maintenance for Zanzibar Electricity Corporation (ZECO)



## **Driving Toward Greener & Efficient Future**

### **Going Green**

- Set up more than 15 Grid Connected Solar Plants with a total generation capacity of 1.77 MW in its own premises.
- Facilitated 450+ rooftop solar connections to convert consumers to prosumers
- Empaneled as "First Utility Channel Partner" with Ministry of New & Renewable Energy, Govt. of India and also received the highest honor rating of SPIA as a "System Integration Grading for Solar PV projects.





### **Being Energy Efficient**

- Only Discom empanelled as Grade-1 ESCO with "Bureau of Energy Efficiency" (BEE) in Energy Efficiency Service Providers.
- Partnering with Consumers Sensitization and Habitual motivation for Energy Efficiency Measures

### **Lighting-up Streets**

- Concept to realization Street Lighting Solution
- Technology driven Smart Street Lightining
- Managing street lighting solution to more than 7 states





### Powering E-Mobility Infrastructure

- Consumers Penetration awareness on buying eco-friendly vehicles.
- Electric Vehicle Charging station infrastructure development
- E-Mobility turnaround aspects and development of enabling the environment.



### A step towards sustainability ...



### Assimilation of Energy Storage

- Collaboration with AES & Mitsubishi for the Installation and behavior characteristic study of 10 MW Battery Energy Storage system (BESS).
- Initiated first of its kind battery test bed for 8kW system with 3 bays of five batteries of different chemistries (Lithium ion, Advanced Lead Acid, Sodium ion, ultra capacitor based lead acid and gel based lead acid).





### Distributed Energy Sources: Mini Grid 'Grid of the *future*'

- Deployment of Mini Grid for rural electrification through technology deployment & community engagement
- Electrification of villages with Decentralized Energy Sources
- Reaching out to different geographies for development of Green Energy Project

### Home Automation - Smart Niwas

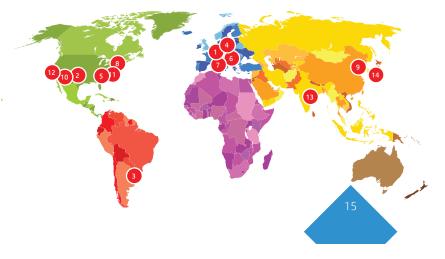
- IoT based Home automation solutions
- Data Analytics services
- Design and development of Energy Management Solution
- Promote and sale of home automation solutions



## **Global Intelligent Utility Network Coalition**

- 1. Alliander, The Netherlands
- 2. CenterPoint Energy Inc., USA 9. KEPCO, South Korea
- 3. CPFL Energia, Brazil
- 4. DONG Energy, Denmark
- 5. Duke Energy, USA
- 6. E.ON AG, Germany
- 7. ENEDIS. France

- 8. IBM, USA
- 10. Oncor, USA
- 11. Pepco Holdings Inc., USA
- 12. SDG&E, USA
- 13. TATA Power-DDL, India
- 14. TEPCO, Japan



## Corporate Sustainability

*Giving back to society, we always believe in* 

Tata Group has a dedicated community development objective to empower the lives of the weaker section of society and improving their socio-economic condition. Tata Power-DDL also believes in carrying forward the philosophy and legacy of the Tata Group by giving back to the society and taking optimal social engineering initiatives. Tata Power-DDL has a focussed and aligned vision, mission and policy with a simple aim of benefiting the society.

Tata Power-DDL has been engaging with the beneficiaries since its inception and has been consistently strengthening and empowering the deprived communities, primarily, the people residing in low-income areas in its area of operation in North and North West Delhi. The objective of the company is to strive and meet the social needs and demands of the poorest of the poor.

Till now TATA Power-DDL has covered over 65,000 women under various women-centric programmes like teaching in Women Literacy Centres, developing Self-Help Groups, Vocational Training Centres and Life Skills Programmes for girl students. About 300 Self Help Groups are running which have helped in empowering over 3,500 women. TATA Power-DDL has also reached out to around 14,500 youth through their 20 Vocational Training cum Tutorial Centres. In addition, TATA Power-DDL is also running various drug de-addiction camps, installing RO plants for safe drinking water, conducting Tree Plantation drives and providing social support to the underprivileged to uplift the marginalised section of the society.

In short, TATA Power-DDL specialises in executing Social Plans through innovative, tried and tested solutions and initiatives which has enabled the company to improve the commercial parameters also in its operating geographies.

Parameters	FY 2002-03	FY 2017-18
Collection Efficiency	<60%	>99%
Billing Efficiency	<40%	>96%



- ...What came from the people has gone back to the people many times over.
- JRD TATA, Chairman, TATA Sons, 1938-1991



## Learning & Development

Shaping your Tomorrow

TATA Power-DDL has set-up two state-of-the-art learning centres, Centre for Power Efficiency in Distribution (CENPEID) and Distribution Operations & Safety Excellence Centre (DOSEC) (CEA mandated Safety Training).

- The campus is spread over 10-acres of land and houses centrally air-conditioned auditorium and classrooms. It also offers for its participants, guest rooms, sports room, TV room, in- house dining facility and library.
- TATA Power-DDL has an internal pool of 375+ faculties & Subject Matter Experts (SMEs) and has conducted approximately 58,500 training man-days in the last 3 years.
- The Learning Center helps Discoms to learn & implement operational efficiency improvements through customized training programs as per need analysis and offers.
- State-of-the-art laboratories with latest technology simulations including the Smart Grid Lab, Transformer Workshop, Meter Diagnostic Lab, SCADA Centre, Protection & Testing Lab, RMU Workshop, AMR Diagnostic, Solar Plants, GIS Development & Analysis Centre.
- Conducting CEA mandatory Hands on safety training HOTT Centre.

The programmes have been organized for delegates from countries like Afghanistan, Bhutan, Mauritius, Myanmar, Nigeria, Sri Lanka, Ecuador, Ethiopia, Gambia, Guyana, Kenya, Kyrgyzstan, Rwanda, Tanzania, Uganda, Zambia, etc. and has trained hundreds of officials from foreign Utilities.





## Types of Training Imparted :-

- International Training program
- Competency based trainings
- Hands-On technical training
- Focused group trainings
- External training programs
- Health and wellness programs
- Employee exchange programs
- Theme based lectures
- Training for promoted employees
- Trainings for redeployed
  employees
  - Guest lectures from eminent personalities & much more





## **Words of Appreciation**

We cherish. We earned.

The adoption of intelligent power quality management solution by TATA Power-DDL is an important step towards integration of smart solution in power distribution.

#### Ibrahim Baylan

Minister of Policy Coordination and Energy, Government of Sweden

"We really learn more from TATA Power DDL, The way thing implement The SAP system in all Department. The way things control all their asset. I love it and I will try to implement it"

#### Delegates from DABS

Afghanistan, On Training Program of TATA Power-DDL

TATA Power-DDL's Smart Grid Lab will not only assist them in becoming a world class utility but will also provide learning opportunities to other Indian Discoms/ Utilities to address their growing power needs through a better understanding of grid modernization, demand side management and renewable energy integration technologies

#### Ms. Leocadia I. Zak

Director, U.S. Trade and Development, Agency (USTDA)

TATA Power Delhi Distribution Limited, in New Delhi, has been successful in providing electricity to 223 slums—with 175,000 customers—by engaging with the community

#### World Bank Blog

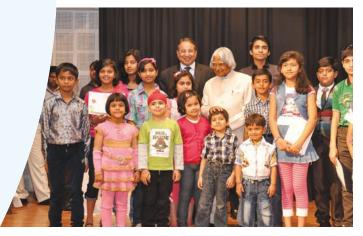
Jamaica, Kenya take cues from India on electrifying urban slums

I think 'TATA Power-DDL' has a lot of credibility. The Company has won the confidence of consumers, took steps to make them feel welcome and also gave the feeling that it was working for the larger public good, rather than merely for profits

**Sheila Dikshit** Former CM, Delhi









## TECHNOLOGY ADOPTION

- Implementation of State-of-the-art Technology
- Pay-per-Use / SAAS Models
- Smart Grid/ Smart Metering/Smart Street Lighting
- Seamless Integration of Technologies
- Advisory Services

# CREATING BUSINESS

- Managing Power Distribution Services
- Consultancy in Loss Reduction
- Process Re-engineering
- Technical & Management Services
- ESCO Services
- Project Management



## CAPITALIZING BUSINESS

- Setting up Green Field Distribution Project
- Execution of Least Cost Electrification Plans
- Distribution Privatization & other Business Transformation Model
- Managed Services Commercial & Maintenance
- Managing Power Infrastructure and Retail Services for SEZ / Township



## PREPARING FOR FUTURE

- Capacity Building Services
- Preparation of Business Plans
- Green Energy & E-Mobility
- Smart Energy Adaptation
- ICT / Technology Roadmap Preparation
- Home Automation

### For Further Information:

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