

Tata Power Delhi Distribution Ltd

Team Members

Manoj Digambar Salvi	Head (CS,KCG & MMG)
Dipanwita Ray	DGM (CEM,VAS & EaaS)
Sandeep Sharma	HoG –EaaS (Implementation)

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

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

ISO 50001 EnMS Certified Organisation



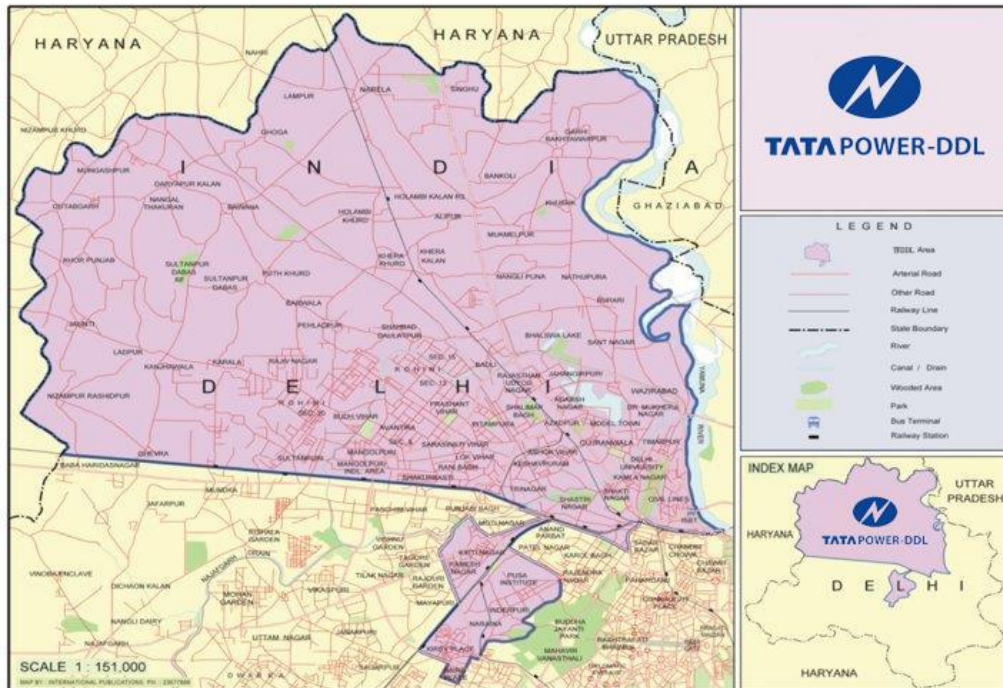
TATA Power-DDL is an ISO 9001(QMS), 14001(EMS), 18001(OHSAS), 27001(ISMS), 8000(SA) certified organization.

with you *Non-Stop*

ABOUT TATA POWER DELHI DISTRIBUTION LIMITED

We believe in

MAKING A DIFFERENCE



Parameter	Unit	July '02	July'21
OPERATIONAL PERFORMANCE			
AT&C Losses	%	53.1	6.85
Peak Load	MW	930	2106
Length of Network	Ckt. Km	6750	12857
Consumers	Count Mn	0.7	1.83
Employees	Count	5600	3300

One of the Most Successful Private Power Distribution Utility



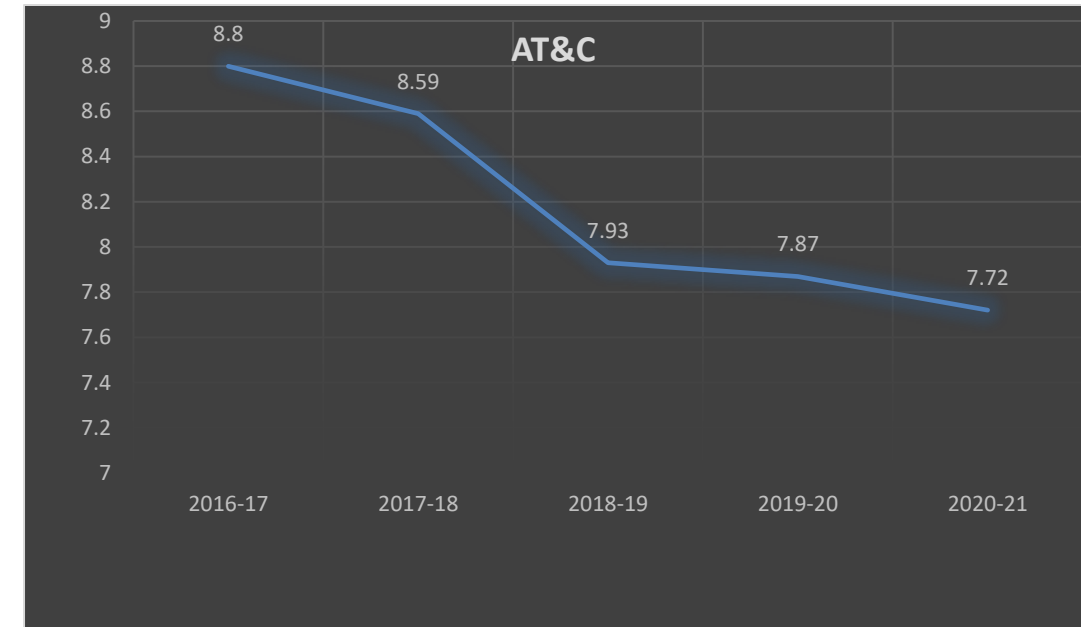
with you *Non-Stop*

AT&C Losses in last 3 years

FY 16-17	FY 17-18	FY 18-19	% Reduction	FY 19-20	% Reduction	FY 20-21	% Reduction
8.80	8.59	7.93	7.7	7.87	0.8	7.72	1.9



- **Tata Power Delhi Distribution Limited has been able to reduce AT&C losses by improving Billing and Collection Efficiency,**
- **% losses reduction have been high due to high recovery in FY 17-18 and FY 18-19 owing to below,**
 - **huge recovery of DW arrears and aggressive enforcement related activities**



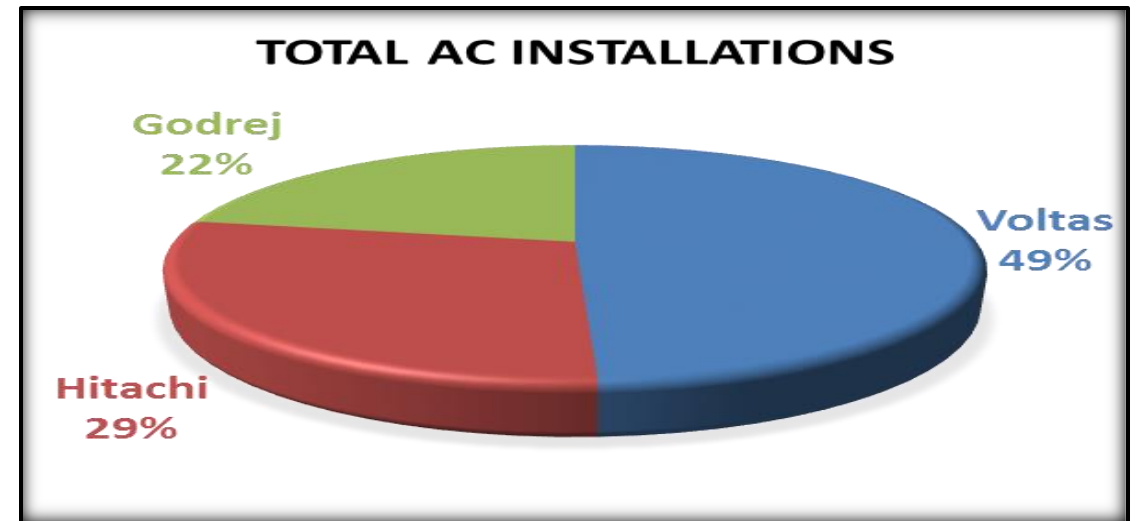
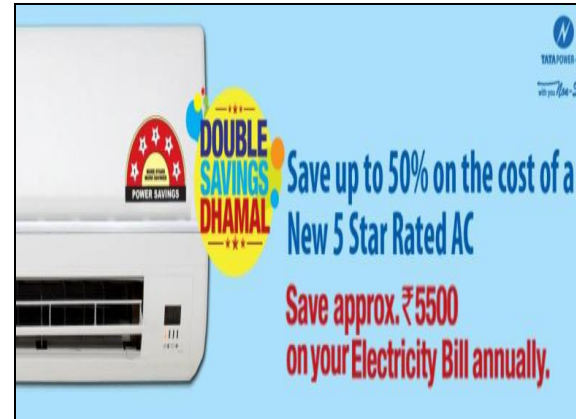
Energy Saving/DSM projects implemented

Year	No of Proposals	Investments	Savings	Payback period
		(Rs. Lacs)	(Rs. Lacs)	(in months)
2017-18	Replacement of non-star ACs with 5 Star ACs	1690	635	32
	UJALA Program	708	1763	5
2018-19	Replacement of non-star ACs with 5 Star ACs	633	238	32
	UJALA Program	261	767	4
	BLDC Fan Scheme	42	29	18
2019-20	Replacement of non-star ACs with 5 Star Acs	111	33	40
	UJALA Program	191	703	3
	BLDC Fan Scheme	19	15	16
	LED bulbs and EE Tubelight with Crompton	100	29	42
2020-21	Replacement of non-star ACs with 5 Star Acs	351	112	38
	UJALA Program	26	103	3
	LED bulbs and EE Tubelight with Crompton	12	52	3

Energy Saving/DSM projects implemented – AC Replacement Scheme

- Objective: Replacement of Non Star rated old ACs with BEE 5 star rated/ Inverter ACs
- Target No. of replacements: 20,000 ACs (Capacity : 1 TR& 1.5 TR)
- Online Facility for AC scheme registration
- Participating OEMs- Hitachi, Voltas, Godrej;
- Scheme launched on July 10, 2015
- Old removed ACs collected under the scheme disposed- off in an environment friendly manner

AC Replacement Scheme (Launched in July 2015)				
FY	Replaced Quantity (Nos)	Load reduction	Energy Saving	CO2 reduction
		(MW)	(MU)	(MT)
FY-15-16	2003	1.72	1.71	569.43
FY-16-17	7135	6.12	6.06	2017.98
FY-17-18	7986	7.55	7.41	2467.53
FY-18-19	2866	2.64	2.65	882.45
FY-20-21	1350	0.63	1.36	452.88
Total	21340	18.66	19.19	6390.27



Energy Saving/DSM projects implemented – LED Lighting Scheme (Crompton)

Under the scheme a complete range of quality LED light products from Crompton Greaves Consumer Electricals Limited (Crompton) offering to Tata Power Delhi Distribution Limited customers.

- LED Bulb- 6W/8W/9W/10W/12W/14W
- LED Tube light – 18W/20 W

Impact Assessment

Lighting Program-Crompton				
Year	Quantity	Peak Load reduction	Demand Saving	CO2 Reduction
	(Nos)	(MW)	(MU)	(MT)
FY 16-17	100000	2.8	3.3	1003
FY 19-20	64353	0.98	2.86	825.29
FY 20-21	11475*	0.27	0.63	209.79
Total	175828	4.05	6.79	2038.08

*Distribution Count are low due to Pandemic



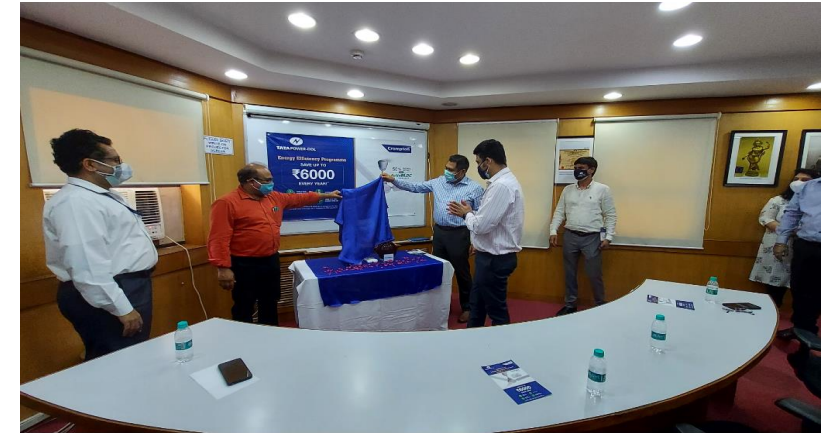
Tata Power to offer LED products at rebates:
Discom Tata Power Delhi on Tuesday launched a scheme under which it will offer a range of LED products to its customers at rebates of up to 60%.

Energy Saving/DSM projects implemented – 5 Star Ceiling Fan Scheme



Under the scheme **BEE 5 Star Energy Efficient Ceiling Fan** from Crompton Greaves Consumer Electricals Limited (Crompton) offering to Tata Power Delhi Distribution Limited customers.

- Energion N Star
- Energion HS



BEE 5 Star Energy Efficient Ceiling Fan

Product	Quantity	Peak Load reduction	Demand Saving	CO2 Reduction
	(Nos)	(MW)	(MU)	(MT)
50 W Fan	500000	0.7 MW	4.5	1498.5



Energy Saving/DSM projects implemented – UJALA Scheme

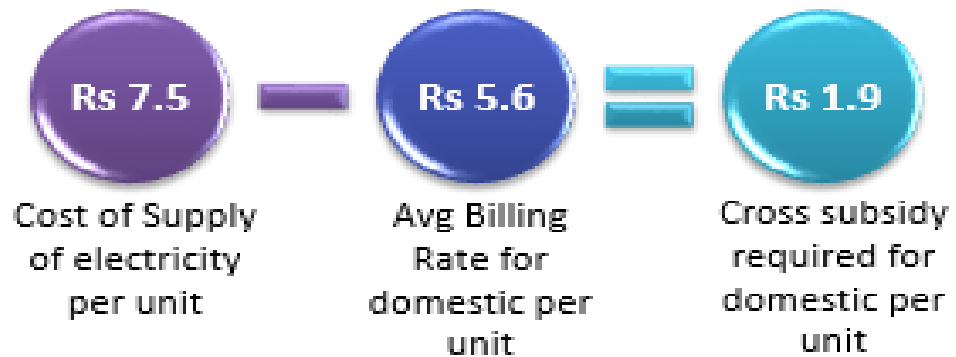
Under the UJALA Yojana Tata Power DDL distributed

- 9 watt LED bulb @Rs. 70
- 20 watt LED T8 Tube light @Rs. 220
- BEE 5 star ceiling fan @Rs. 1110

Tata Power-DDL only DISCOM facilitating EESL as distributing agency engaging Abha members

Product	% w.r.t market Price	Warranty (in years)	Replacing Conventional Appliances	% Energy Saving
9W LED Bulbs	53%	1	60 W Incandescent/14 W CFL Bulb	85%/36%
20W LED Tube light	66%	1	T-12/T-8 Florescent Tubelight	56%
50W BEE 5 Star Ceiling Fans	33%	1	Non Star Rated Ceiling Fan 75 W	33%

Savings in Monetary terms



with you *Non-Stop*

Energy Saving/DSM projects implemented – UJALA Scheme

Unnat Jyoti by Affordable LEDs for All - UJALA scheme (Launched in March 2017)

FY	Material	Quantity	Load reduction	Energy Saving	CO2 reduction
		(Nos)	(MW)	(MU)	(MT)
FY-17-18	9W LED Bulbs	635444	17.79	16.01	5331.33
	20W LED Tube light	83818	2.18	3.92	1305.36
	50W BEE 5 Star Ceiling Fans	7141	0.18	0.64	213.12
FY-18-19	9W LED Bulbs	312017	8.74	7.86	2617.38
	20W LED Tube light	11031	0.29	0.52	173.16
	50W BEE 5 Star Ceiling Fans	1612	0.04	0.15	49.95
FY-19-20	9W LED Bulbs	233272	6.53	7.91	2283.78
	20W LED Tube light	1132	0.03	0.06	17.64
	50W BEE 5 Star Ceiling Fans	2274	0.06	0.24	68.15
FY-20-21	9W LED Bulbs	37177	1.04	1.25	416.25
	20W LED Tube light	18	0.00	0.00	0.00
Total		1324936	36.88	38.56	12476.12

Released during achievement of 1 Mn Distribution in FY 18-19

EESL **UJALA** **TATA POWER-DDL** **GOVERNMENT OF INDIA MINISTRY OF POWER**

TATA Power-DDL in Association with EESL Achieves Landmark Milestone

Distribution of 1 Million LED Lighting Products under UJALA Scheme

Annual Energy Savings – 30 MU

Annual CO₂ Reduction – 9856 MT

Energy Saving/DSM projects implemented - BLDC Super Efficient Fan Program

- Power consumption : 28 W
- Smart Remote control along with Sleep mode and Timer Mode
- 3 years on-site warranty
- Discount up to 40% on MRP
- Available in 3 color variants (White,Brown,Ivory)

Super-efficient BLDC fan is the new revolution in the ceiling fan industry. BLDC technology in simpler terms, BLDC uses a combination of Permanent Magnets and Electronics to achieve the kind of efficiency and performance it delivers. It is only a matter of time before all old inefficient induction motor fans will be replaced by smart super-efficient BLDC fans. The super energy efficient BLDC fan consumes only 28W at rated speed against the 70W consumption of conventional fans. TATA POWER DELHI DISTRIBUTION LTD. took this initiative during FY 2018-19 to distribute BLDC fans at a discounted price to all segment of consumers. Till date, **3000 Nos** of BLDC fans have been distributed through TATA POWER DELHI DISTRIBUTION LTD. Customer care centers.

ATOMBERG TECHNOLOGIES

TATA POWER-DDL

PRESENTS
SUPER ENERGY EFFICIENT BLDC CEILING FAN PROGRAM

SPECIAL DISCOUNTED RATES

Offline
MRP ₹ 3600
₹ 2200

Online
MRP ₹ 3600
₹ 2300
Inclusive home delivery

Offer valid only for Tata Power-DDL Consumers

For more program related information visit tatapower-ddl.com/ or visit Tata Power-DDL District customer centre or call on 19124

TATA POWER-DDL

Crompton

Energy Efficiency Programme

Energion

50% ENERGY SAVINGS
ActivBLDC TECHNOLOGY

SAVE UP TO
₹6000
EVERY YEAR*

3-YEAR WARRANTY
SMART REMOTE
EASY INSTALLATION
WIDE VOLTAGE RANGE (160V-250V)

Other Energy Saving/DSM projects implemented – LED Street Lighting Project

- Tata Power DDL in consortium with M/s Havells implemented North Delhi Municipal Corporation LED Streetlight Project.
- M/s Havells is a technology partner and Tata Power DDL is service partner for implementation and O&M.
- The project involved replacement of existing HPSV lamps with energy efficient LED light fixtures.
- The total estimated load reduction is 24 MW by replacement of over 1.6 lakh of HSPV lamps with LED lamps.
- It has ensured guaranteed energy saving of 64% per year

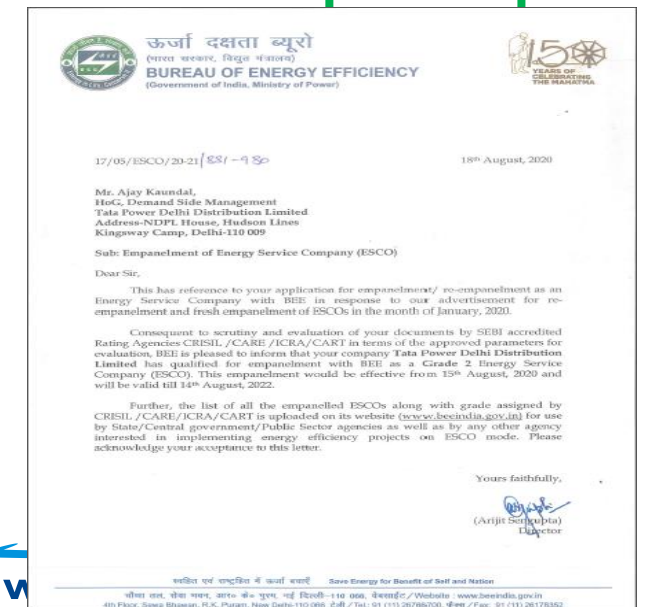
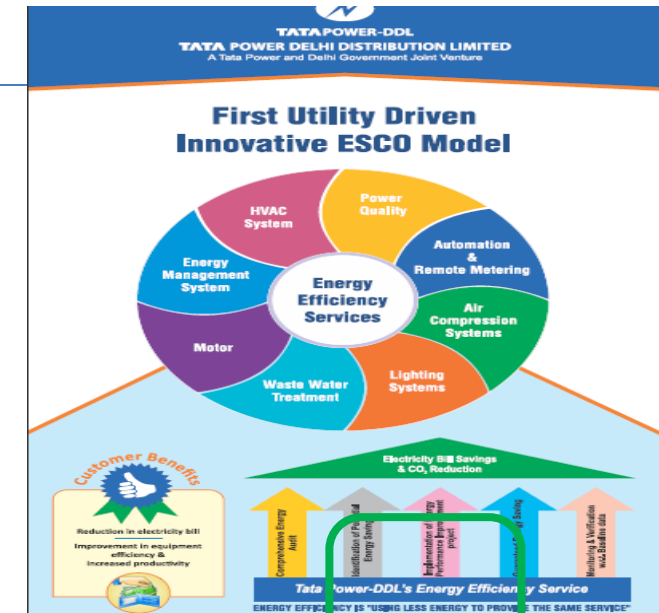
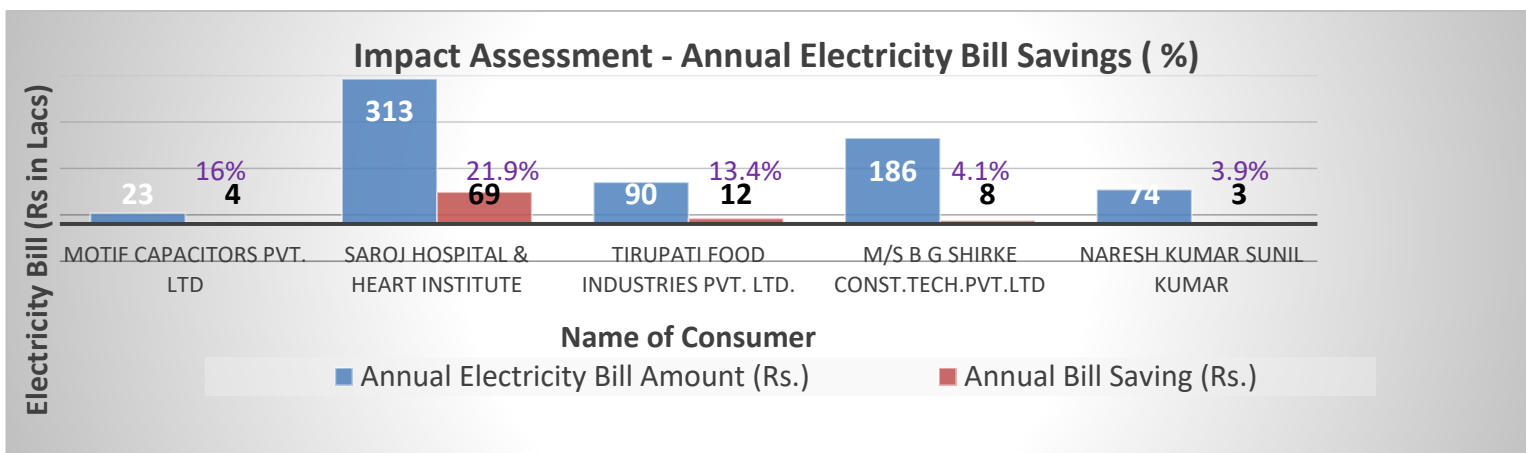


Other Energy Saving/DSM projects implemented – ESCO Services

USP:

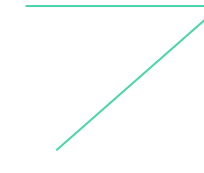
- Tata Power Delhi Distribution Limited is only DISCOM to be certified Grade 2 ESCO by BEE
- Partnership with OEM and Technology solution providers
- Performance guarantee from ESCO agency as per baseline
- Financing Model

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	Cumulative
Energy Audit conducted (MW)	18.3	49.8	32.9	16.65	2.3	120
ESCO Implementation (MW)	2	6.58	10	4.23	0	22.81





SCADA System at TATA Power-DDL is integrated with DMS, OMS, GIS, Power Manager and ERP Systems



- Unmanned Automated 66 kV, 33 kV Grid Stations.
- CAP on TAP for Automatic Voltage Regulation
- Optimize Power Management (Scheduling & Demand Forecast)
- Effective Load Management
- Improvement in Reliability Indices

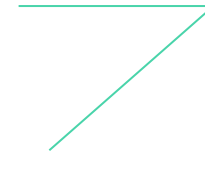
In TATA Power-DDL, SCADA has implemented across the network of 1.7 m consumers with configuration of around 65000 Input/output points and more than 70 Remote terminal units (RTUs).

It has 80 unmanned automated 66KV, 33 KV Grid Station.

It has been able to improve the reliability indices and effective load management with Optimization of around 80000 IO points, preparation & segregation of alarms and Automation of 450 Ring Main Units (RMUs) with Feeder Remote Terminal Units (FRTUs) and 450 Fault Passage Indicator (FPI) locations using GPRS communication media.



Edison Award by Edison Electric Institute of US was conferred on TATA Power-DDL for its operational excellence and integrating its GIS with other applications such as network planning, operations, commercial and asset management.



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

1.8 Mn customers have been mapped on GIS

TATA Power-DDL has mapped all the grid stations, substations, transformers, lines, cables and consumers that are part of the distribution electrical network into GIS.

TATA Power-DDL is one of the first utilities in India to implement an enterprise wide GIS

- TATA Power-DDL has implemented Advanced Distribution Management System (ADMS) and Distribution Network Automation (Self Healing) technologies.
- Integration of SCADA-GIS-DMS system.
- Collects data from field on Data Collector Unit (DCU) and Interface it with exiting system such as Outage Management System, SAP – Maintenance, Field Force Automation, etc.
- Objective is to provide reliable system for data acquisition, automated fault restoration and better power supply.

Integrated GIS-OMS-SCADA-CRM



GIS

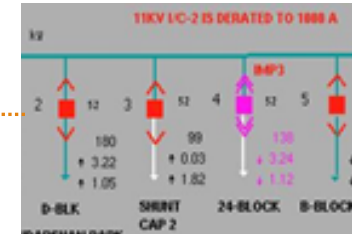
Details of the customer & Customer Count



OMS

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

Information of an Outage



SCADA

Interactive Voice Response(IVR) system

Please enter your CA number to view details of all Current and Scheduled Outages for the next 2 days:

Enter CA Number:

DETAILS OF OUTAGES/SHUTDOWNS THAT WOULD BE TENTATIVELY EXPERIENCED AGAINST YOUR ELECTRICITY CONNECTION IN THE NEXT 48 HOURS:

Please note that these Outages could be attributable to maintenance work that is planned in your area during the time details listed below, or unforeseen faults that might have occurred, or Emergency Shutdowns being carried to protect the Distribution Equipments and Networks.

Date	Outage Start Time (As both a time and date)	Estimated Restoration Time	Estimated Shutdown Time
Current Count:		10:04:29:13	23:32:30

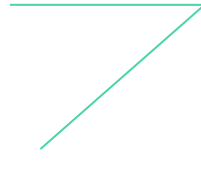
Outage status updated on Tata Power Delhi Distribution Limited website with estimated time of restoration



SAP - CRM



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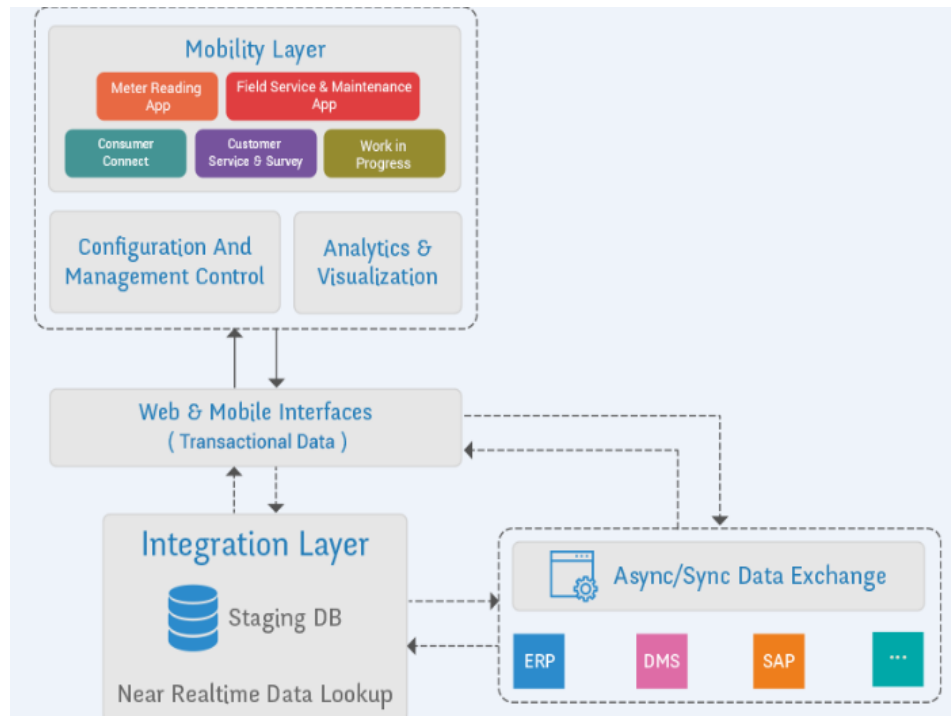


Tata Power Delhi Distribution Ltd, launched a mega drive in the month of Sep 2017, to rollout Smart metering services for its consumers. The firm has rolled out 250,000 smart meters in the first phase of its Advanced Metering Infrastructure (AMI) project.

- TATA Power-DDL has implemented PLC and RF mesh based smart meters for its High Load Base Consumers.
- This has helped TATA Power-DDL reduce its OPEX for Meter Communication, Improve Power Quality, 100% auditing and asset management and automated network topology management

Field Force Automation

FFA helps in Crew & Resourcing Monitoring



- Customer service through mobile workforce is the key to exceed the expectations of the consumer.
- Field Force Automation (FFA) is a system which optimizes the various tasks in hand.
- FFA schedules & dispatches the nearest Crew to provide faster service to the consumers.
- This system not only enhances the service level but also completely tracks the allocation of workforce

Innovative Projects Implemented @Tata Power Delhi Distribution Limited – Talk Back Seals



New Polycarbonate seals of pre-determined transparency by doping of a unique agent



Infra Red Sensor DEVELOPED to check authenticity of seals by verifying the transparency

Technologically advanced solution available to detect meter tampering at site

Cannot be copied easily, as the compound doped with polycarbonate is difficult to disintegrate.

Visually identical to normal seals and hence the thieves can not easily detect the difference

These seals being used in major theft prone areas like Narela, Bawana and other J J Cluster

11 KV Vertical Substation




TATA POWER-DDL

Won First Prize in Knowledge fair held
in TATA POWER, Mumbai

Two Tier arrangement of Electrical
equipment's

1000 KVA DT on first floor with platform

10.5 Sq.mm covered(70% Space Reduction)

First time in India

Inaugurated by Chief Engineer-CEA

5

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- Space constraints in Tata Power Delhi Distribution Limited area to install sub-stations
- Delay in release of new connections and load enhancement due to space constraints
- Vertical sub-stations will help to reduce this constraint
- More than 70 High Revenue connections suspended last year due to space constraints

Innovative Projects Implemented @Tata Power Delhi Distribution Limited – Use E Rickshaws for Maintenance

- In congested area it is not possible to take maintenance vehicles to carry out repair.
- Tools and tackles have to taken on foot resulting into delay in restoration of supply.
- In house designed E Rickshaws being used for maintenance works in narrow lanes.
- This has resulted into nearly 20% reduction in Mean Time Taken to Restore/ Repair

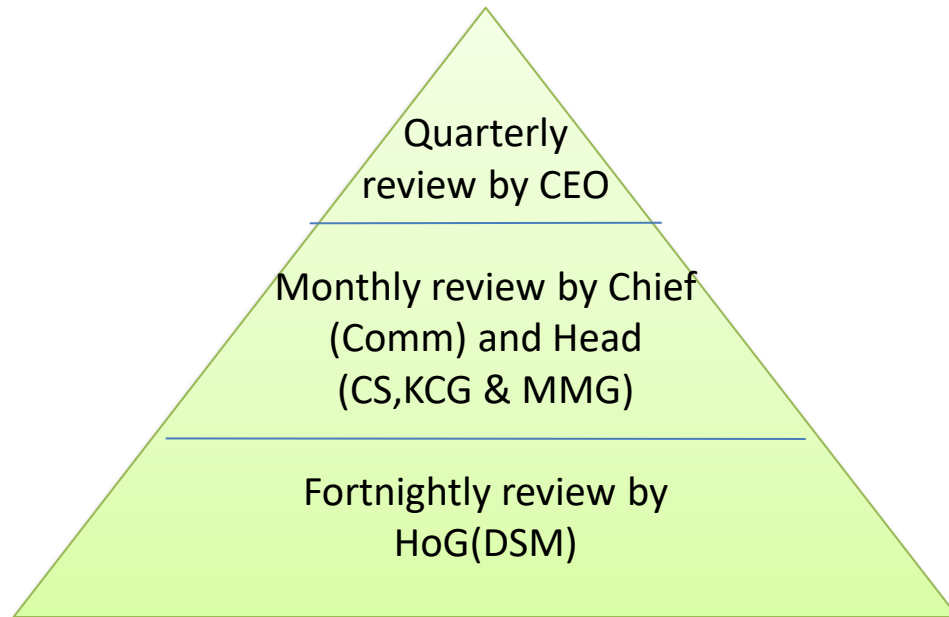


RE Purchase and RPO Purchase

Renewable Energy purchased from Wind/ Solar PV						
	Annual Energy purchased in million kWh FY 18-19	% share	Annual Energy purchased in million kWh FY 19-20	% share	Annual Energy purchased in million kWh FY 20-21	% share
Wind Energy	0	0	0	0	53	4 %
Solar PV	78.84	32 %	127	16 %	582	47 %
Other	167.61	68 %	655	84 %	607	49 %
RPO Target						
RPO Targets	FY 18-19		FY 19-20		FY 20-21	
	Target	Achieved	Target	Achieved	Target	Achieved*
Solar	4.75 %	4.75 %	6.75 %	6.75 %	7.25 %	7.25 %
Non-solar	9.5 %	9.5 %	10.25 %	10.25 %	10.25 %	10.25 %

- For achieving the FY 2020-21 compliance of Solar a short term Bilateral purchase arrangement has been done with Karnataka through PTC.
- For achieving the FY 2020-21 compliance of Non Solar a short term arrangement has been done with Himachal Pradesh (HPSEBL) through Kreate Energy.
- RPO compliance for FY 20-21 complied in totality through physical power without purchase of RECs

Frequency of Review



Roles and Responsibilities of Energy Manager/DSM Cell:

1. Carry out Load Research of the Discom
2. Formulate Energy Efficiency and DSM schemes based on the findings of Load Research
3. Implement and monitor the performance of the schemes.
4. Carry out energy conservation awareness programs
5. Promotion of BEE star levelled appliances among the consumers

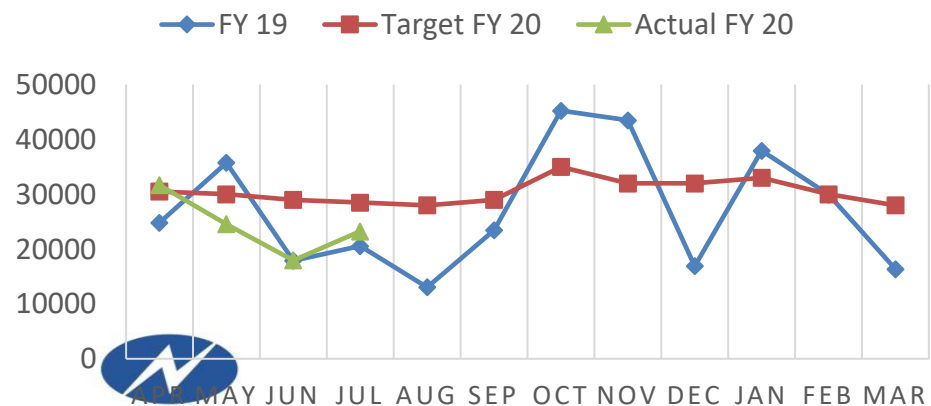
Energy Efficiency/awareness training programs:

1. Energy efficiency awareness session conducted on monthly basis with RWAs and IWAs.
2. Training programs are organised under BEE Capacity Building Program
3. Camps organised at various location

Monitoring and Reporting System:

1. Target setting for the savings in electricity consumption.
2. Monitor overall energy and determine the contribution made by specific energy efficiency actions to these overall savings.
3. Reporting achievement of energy saving targets, and the verification of savings
4. Carry out regular reviews on monthly basis

MANAGING POINT MONITORING (ILLUSTRATIVE)



Budget for Energy Conservation:

Separate budget is allocated each year for carrying out Energy Conservation related activities like URJA mela, spreading awareness through SMS, print media etc.

Employee involvement - Energy Conservation projects implemented through employees

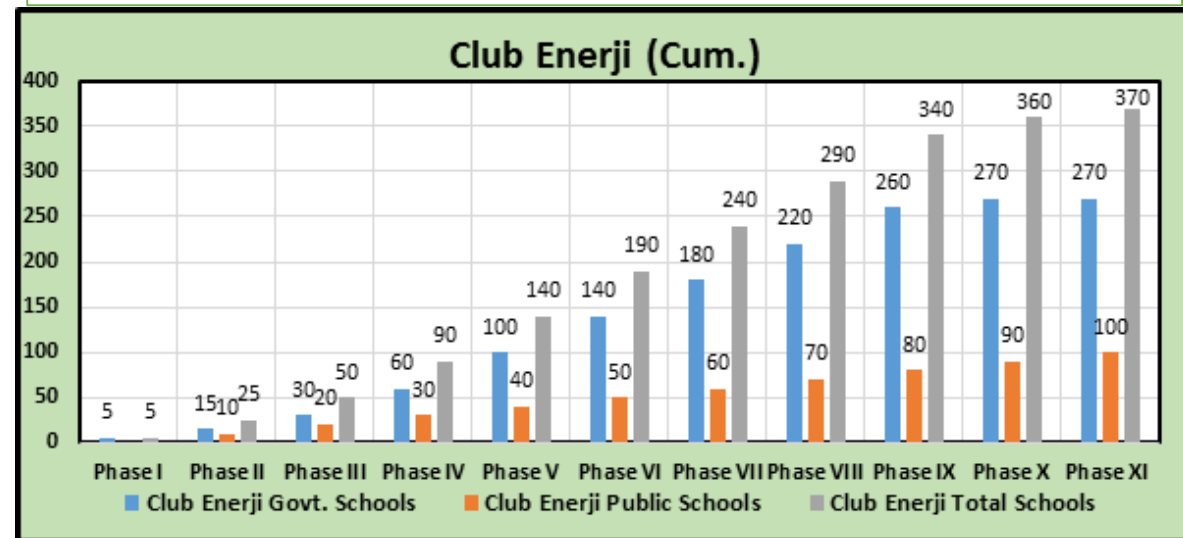


- Tata Power-DDL Club Enerji is an effort to sensitize and school students, their family members & neighbours about Energy Conservation, Solar, Renewable Energy, Climate Change & Safety and hence bring behavioural change in them.
- Tata Power-DDL Club Energy's journey saw the first light of life in the year 2005 with merely 5 schools. We have completed XI phases so far and 370 schools are now our existing Club Enerji Members.

Urja Mela

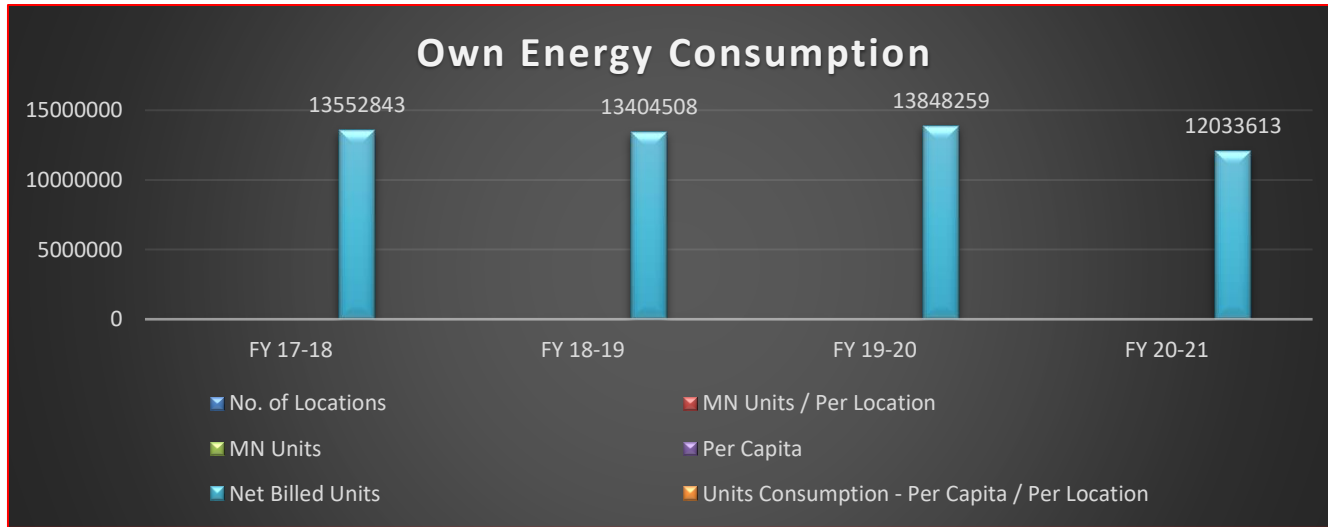
- This is an annual event organised in schools in which the different competitive activities like painting, quiz etc. are organized.
- Annually more than 2000 students from more than 200 Schools participate in this Urja Mela.


THE JOURNEY SO FAR.....



Employee involvement - Own Energy Consumption @ Tata Power Delhi Distribution Limited

Parameters	FY 17-18	FY 18-19	FY 19-20	FY 20-21
No. of Locations	347	383	380	399
MN Units / Per Location	0.0386	0.0352	0.036442787	0.030159431
MN Units	13.4	13.5	13.848259	12.03
Per Capita	0.004018	0.004025	0.004196	0.003646
Net Billed Units	13552843	13404508	13848259	12033613
Units Consumption - Per Capita / Per Location	11.57	10.47	11.0421	9.1378





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TATA POWER-DDL



Integrated Management System Policy


(Quality, Safety, Health, Environment, Energy & Social Accountability)

Tata Power-DDL is committed to deliver world class services and reliable power through energised workforce leading to ever-increasing satisfaction of its consumers. We also ensure safe & healthy environment and workplace conditions, energy efficient services, with due regard to environmental protection, and prevention of pollution compliance of applicable laws and regulations.

This will be achieved by:

- Complying with all the requirements of ISO 9001, ISO 14001, ISO 45001, ISO 50001 and SA 8000 management standards through engaged workforce
- Complying with all applicable legal and other requirements related to Safety, Health, Energy use, Consumption and Efficiency, Environment and Social Accountability
- Continually improve our quality, environmental, energy, occupational health & safety and social performance in each area of work by establishing and reviewing objectives & targets
- Commitment to ensure the availability of information and of necessary resources to achieve objectives and targets
- Creating a work environment which encourages team work, safe work practices, learning & innovation
- Investigating workplace incidents in order to eliminate/mitigate unsafe conditions and practices
- Conducting our businesses in a socially and ethically responsible manner
- Supporting the purchase of energy-efficient products and services, and design for energy performance improvement
- Enhancing Quality, Safety, Health, Environmental, Energy and Social Accountability awareness amongst all stakeholders through communication and training

This policy will be made available to interested parties.



Sanjay Kumar Banga
Chief Executive Officer
1st November 2018

TATA POWER DELHI DISTRIBUTION LIMITED
(A Tata Power and Delhi Government Joint Venture)

Despite an increase in the no. of office locations in FY 18-19, consumption of MN units per location has witnessed a decreasing trend.

Employee involvement - Own Energy Consumption @ Tata Power Delhi Distribution Limited

Accreditation to ISO 50001:2018

- Tata Power-DDL got certified to ISO 50001:2018 (Energy Management System) in May 2018.
- The main objective of the standard is to improve energy-related performance and energy efficiency to further identify energy reduction opportunities.
- 27 Employees trained for conduct of internal EnMS audits.

Other Initiatives:

- Awareness sessions on energy conservation within the organization.
- Labeling of switches (Red – Green).
- Procurement of 5-star rated equipment for offices - AC, Transformer, LED light, Fans, Refrigerator.



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.:
1000044004-MSC-RVA-ND

Initial certification date:
10 July 2018

Valid:
10 May 2021 – 09 May 2024

This is to certify that the management system of
Tata Power Delhi Distribution Limited
NDPL House, Hudson Lines, Kingsway Camp, New Delhi - 110009, India
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Energy Management System standard:
ISO 50001:2018

This certificate is valid for the following scope:
Provision of services for the distribution of power to north and north west Delhi, including renewable generation, operations, commercial, engineering & all support functions

Place and date:
Barendrecht, 11 May 2021



For the issuing office:
DNV - Business Assurance
Zwakweg 1, 2994 LB Barendrecht, Netherlands




Eric Koek
Management Representative

Lack of fulfillment of conditions set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance B.V., Zwakweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689, www.dnvgl.com/assurance

With ADR implemented for commercial and industrial consumers (>100 KW Load), TATA Power-DDL is can reduce load upto nearly 34 MW via managing critical peak demands and thus maintaining a flat load profile and reducing grid stress.

TATA Power-DDL is one of the first Indian Power Utilities to launch Auto Demand Response (ADR) project with Smart meter in India



About the Project:

First Utility initiated Smart Meter based ADR program in the country Project approved by DERC

Project Objectives:

- To manage peak demand
- To manage Grid Stress situations

Pilot Project to cover 250 nos. of high end consumers with sanctioned load of 100 KW and above with an objective to reduction of peak load.

Project Components include :

- Automated Demand Response infrastructure including DR server and site controllers
- Smart Meters
- RF Mesh based Communication
- MDMS and its integration with other OT & IT systems like OMS, SAP, ADR.

Collaborative partnership with selected vendors

with you *Non-Stop*

Tata Power-DDL has collaborated with AES & Mitsubishi for the Installation and behavior characteristic study of 10 MW Battery Energy Storage system (BESS).



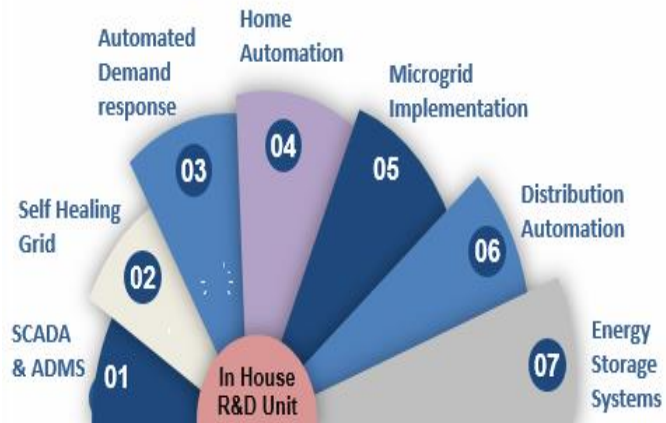
Battery Testing Lab

- Tata Power-DDL has set up first of its kind battery test bed for 8kW system.
- It has 3 bays where currently five batteries of different chemistries (Lithium ion, Advanced Lead Acid, Sodium ion, ultra capacitor based lead acid and gel based lead acid) are under testing
- Motor loads have also been incorporated by connecting the Pumps available at the grid station to see the effect in terms of drops in voltage and sudden surge in current.
- There is an additional 10 KW Solar mini grid test bed. The site is used for the load simulation and data acquisition of the actual off-grid conditions existing in India.

Showcasing the Future

Smart Grid Lab – “In-House R&D Unit”

TATA Power-DDL has set up a **Smart Grid Lab** in **Rohini**, first of its kind in India to showcase futuristic technologies and same has received the **Department of Scientific and Industrial Research's (DSIR)** accreditation. The lab has been accredited as the '**in-house R&D unit.**'



Smart Grid Technology Roadmap:

Latest Technologies to be implemented

- Advanced Metering Infrastructure
- Field Force Automation
- Enterprise Service Bus
- Unified Communication
- Business Intelligence

Smart Grid Lab – The only one of its kind in the country:

First-hand witness of future technologies:

SCADA & Advanced Distribution Management System(ADMS)

Self-Healing Grid

Automated Demand Response

Home Automation

Microgrid Implementation

Distribution Automation

Energy Storage Systems

Steps/Efforts taken to create awareness in public for DSM



DSM Scheme stalls organized at various Events



LED Camps organized at RWA meetings



DSM Scheme Advertisement in print media



Awareness via SMS



DSM Camps organized at various Locations



Steps/Efforts taken to create awareness in public for DSM

Pamphlets for various DSM and Energy Efficiency Schemes distributed among consumers

TATA POWER-DDL
TATA POWER DELHI DISTRIBUTION LIMITED
A Tata Power and Delhi Government Joint Venture

CONSERVE ENERGY

at home, at work & in our communities

with
Demand Side Management (DSM) & Energy Efficiency

ENERGY EFFICIENCY LEADS TO SUSTAINABILITY

- Promotion of energy efficiency measures among consumers
- Phase out incandescent bulb achieved approx. 15 MW load reduction
- LED for street light application- approx. 65% load reduction
- Awareness about sun reflect paints
- LED for advertising hoardings approx. 60% load reduction
- LED Bulbs Lighting Program: upto 15 MW load reduction
- Appliance replacement programme for Air Conditioners non star rated to BEE 5 star rated AC with estimated load reduction of 14 MW
- Load research activity for consumer categories to frame DSM action plan

www.tatapower-ddl.com power to the people

TATA POWER-DDL
आपके साथ सौन-स्टीप

आओ LED बल्ब अपनाएं

पैसे और बिजली दोनों बचाएं

टीपीडीडीएल उपभोक्ताओं के लिए चरखू कार्यक्रम प्रकाश कार्यक्रम (डीईएलपी) के अंतर्गत LED बल्ब वितरण स्कीम

टीपीडीडीएल के घरेलू उपभोक्ता पाएं 4 LED बल्ब सिर्फ ₹93 प्रति बल्ब के दर से*

4 LED बल्ब लगाकर बिजली बिल में करें ₹648 तक की सालाना बचत

LED बल्ब लाभ वचत ही वचत

	LED बल्ब (डीईएलपी)	सीएफएल	आइ-सीएल
ऊर्जा	7	14	60
बिजली (घण्टी) बचत	88%	50%	0%
आयुर्विधि (घण्टी) तक	₹162.00	₹85.50	₹1200
आयुर्विधि जीवन (घंटे) पर लागू/घंटे	50000	8000	1200
को लागू/घंटे	3 मिन	1 मिन	घण्टा

योजना की विशेषताएं

यह योजना केवल टीपीडीडीएल के घरेलू उपभोक्ताओं के लिए है उपभोक्ता इन LED बल्ब को एकमुश्त भुगतान अथवा मासिक किश्तों में भी प्राप्त कर सकते हैं

LED बल्ब टीपीडीडीएल के सभी उपभोक्ता सेवा केंद्रों पर उपलब्ध हैं

LED बल्ब को प्राप्त करने के लिए निम्नलिखित दस्तावेज आवश्यक हैं: नवीनतम बिजली का बिल + एक फोटो घरवाहन पत्र + पता प्रमाण पत्र अधिक जानकारों के लिए: 011-66404040 पर संपर्क करें अथवा www.tatapower-ddl.com पर लग आएं करें

DOUBLE SAVINGS DHAMAL

SHIFT TO 5 STAR AC. SHIFT TO NON-STOP SAVINGS.

Exchange your old AC with a new BEE 5 Star Rated AC or Inverter AC @ a discount of up to 50% on MRP.

Also save approx. ₹5500/- on your Electricity Bill annually due to lower power consumption.

ACs available from leading manufactures.

Type of AC	BEE 5 Star 1 Ton	BEE 5 Star 1.5 Ton	Inverter 1 Ton	Inverter 1.5 Ton
Subsidy Proposed (₹/AC)	₹4800	₹4800	₹4800	₹4800

Savings against exchange of old non star rated AC with 1.5 Ton 5 Star Rated / Inverter AC

Star Rating	Power consumption (Watts)	Energy Consumption per Year in units	Annual Electricity cost (₹)	Electricity Cost saving per year compared to Non-Star AC
Non Star	2400	2160	13701	None
5-Star	1600	1440	9249	₹4452
Inverter AC	1400	1314	8316	₹5384

TERMS & CONDITIONS:

- Valid for only 20,000 TPDDL Domestic Customers on first come first serve basis
- Scheme is applicable for the customers having an average monthly consumption of up to 1200 units per month during summer period from April to September 2014
- Scheme applicable for either 1 ton or 1.5 ton Split & Window ACs

Requirement for purchase of AC
Old non star AC + Latest electricity bill + Photo ID proof + Address proof
Interested Customers may call 011-66404040 or contact TPDDL Customer Care Centers or log on to www.tatapower-ddl.com for Scheme Details.

TATA POWER-DDL

PRESENTING AN EXCLUSIVE EXCHANGE OFFER.

EXCHANGE YOUR OLD AC FOR A VOLTAS 5 STAR RATED AC OR INVERTER AC, AND SAVE UP TO 50%.

Up to 50% Discount

Up to 60% Power Saving

SPECIAL PRICE FOR TPDDL CONSUMER

Type of AC	Model No.	Tonnage	MRP	Special Price with 1 yr Warranty	Discount %	Special Price with 3 yr Warranty	Discount %
Window AC	180 CV18E-DSP	1.8	27,200	15,700	42%	16,200	41%
	180 CV18E-DSP	1.8	24,500	12,800	48%	13,800	43%
Split AC	182 CV182 CV182 CV182 CV182	1.8	37,500	19,700	47%	20,200	46%
	188 CV188 CV188 CV188 CV188	1.8	45,000	24,100	47%	24,600	46%
Inverter AC	12 CV12E-Gold	1.2	45,400	26,400	42%	27,900	39%
	18 CV18E-Gold	1.8	58,400	33,600	42%	35,100	40%

Presenting the "Volta Green Exchange Offer" exclusively for TPDDL Consumers. Exchange your old AC with a Voltas 5 star rated AC or Inverter AC and avail attractive discounts up to 50%. Hurry! It's a limited period offer.

VOLTAS all weather smart AC

For Inquiry, contact your nearest TPDDL Customer Care Center.
Volta Contact - Nikhil Anura - 991160340, 011-66505750 / 5550, 1800 425 4555 (Toll Free)



KEY TO SUSTAINABILITY

Renewable Energy, Energy Efficiency, Energy Conservation, Energy Neutral, Combat Climate Change

AIR CONDITIONER: Smart control from an window & door typically consumes 15-18% energy savings

REFRIGERATOR: Switch to BEE 5 star rated model instead of refrigerator. It can save up to 20% energy savings

LIGHTING: Replacement of conventional CFL bulbs with LEDs typically can reduce power consumption by 20%

COMPUTERS/LAPTOPS: Setting computers, laptops and servers to sleep mode when not in use helps to save energy costs by approximately 40%

टीपीडीडीएल एलईडी उत्पाद 60 फीसद कम कीमत पर देगी

नई दिल्ली (एसएनबी)। टाटा पावर दिल्ली डिस्ट्रीब्यूशन लिमिटेड (टीपीडीडीएल) ऊर्जा दक्षता तथा संरक्षण को बढ़ावा देने के लिए लगातार प्रयासरत है। उसको कम कीमत पर एलईडी उत्पाद देने की योजना बिजली बिजली खपत में तो कमी लागूगी साथ ही उपभोक्ताओं के बिलों में भी कमी आएगी। यह बात टीपीडीडीएलके सीईओ एवं प्रबंध निदेशक प्रवीर सिन्हा ने कही। वह क्रॉम्प्टन ग्रीव्स कंज्यूमर लिमिटेड के साथ मिलकर उपभोक्ताओं को सस्ती दर पर एलईडी बल्ब उपलब्ध करने की योजना के शुभारंभ अवसर पर बोल रहे थे। इस अवसर पर टीपीडीडीएल के वरिष्ठ अधिकारी तथा कर्मचारी उपस्थित थे। कार्यक्रम का आयोजन इडसन रोड पर किया गया।

ग्रीव्स कंज्यूमर लिमिटेड के साथ मिलकर उत्तर एवं उत्तर पश्चिमी दिल्ली में अपने उपभोक्ताओं को सस्ती दर पर एलईडी बल्ब उपलब्ध करने की योजना शुरू की है। इसके तहत ग्राहकों को एलईडी उत्पादों पर 60 प्रतिशत तक छूट दी जा रही है। यह छूट

■ उपभोक्ता सेवा केंद्रों पर शुक्रवार सुबह 10 बजे से शाम 5 बजे तक खरीदी जा सकते हैं एलईडी लाइटिंग उत्पाद

एलईडी लाइटिंग के 11 उत्पादों पर डिज्वन ग्लोबल्स, ट्यूब लाइट्स, पैनल और डाउन लाइट्स पर दी जा रही है। यह योजना 5 अप्रैल, 2016 से शुरू होकर चार सितंबर तक जारी रहेगी।

उन्होंने कहा कि कंपनी ऊर्जा बचत को बढ़ावा देने और उनके बिजली बिलों में कमी लाने के उद्देश्य से यह योजना शुरू की

ENERGY-EFFICIENT LED LAUNCHED

Tata Power - DDL, with Crompton Greaves Consumer Electricals Ltd (CGCEL), launched the energy-efficient LED Lighting programme for its customers in North and North-West Delhi on April 6. This is the first utility-based discounted LED programme, under which the complete range of LED lighting products with 11 assortments would be offered to customers.

बिजली में अनुसंधान को बढ़ावा देने के लिए स्पर्धा

राज्य ब्यूरो, नई दिल्ली: बिजली के क्षेत्र में न तकनीक, अनुसंधान व आइडिया को बढ़ावा देने के लिए टाटा पावर दिल्ली डिस्ट्रीब्यूशन लिमिटेड इंडिया स्मार्ट ग्रिड और नेताजी सुभाष इंस्टीट्यूट ऑफ टेक्नोलॉजी के साथ मिलकर तीन दिवसीय प्रतियोगिता इनोयान तथा एप-ए-थान नाम से प्रतियोगिता आयोजित कर रहा है। 11 से 13 मार्च तक चलने वाली इस प्रतियोगिता में विद्यार्थियों शोधकर्ताओं, बिजली कंपनियों तथा तकनीक में दिलचस्पी रखने वालों को अपनी प्रतिभा प्रदर्शित करने का अवसर मिलेगा। टीपीडीडीएल के अधिकारियों ने बताया कि नेताजी सुभाष इंस्टीट्यूट ऑफ टेक्नोलॉजी द्वारा का में प्रतियोगिता आयोजित होगी। यह स्मार्ट ग्रिड और स्मार्ट सिटीज पर आयोजित होने जा रहे दूसरे स्मार्ट ग्रिड वीक 2016 के तहत आयोजित हो रहे कार्यक्रमों का हिस्सा है। इनोयान हार्डवेयर आधारित प्रतियोगिता में युव आविष्कार व विचार प्रस्तुत करते हैं।

TPDDL launches energy efficient LED lighting program



Tata Power Delhi Distribution Ltd (TPDDL), in association with Crompton Greaves Consumer Electricals Ltd has launched the energy efficient LED lighting program for its customers in North and North-West Delhi. Under the programme, a range of LED lights with 11 assortments globules, Tube Light and Down Lighters would be offered to customers at discounted

prices. This initiative is aimed at reducing electricity bills and promoting energy efficiency. The program will run from April 5 to September 4, 2016. Customers can avail a 60% discount on the purchase of LED lighting products at participating service centers.

बिजली उपकरणों पर 60 फीसदी की छूट

नई दिल्ली। राजधानी के उत्तर और उत्तर-पश्चिमी जिला में बिजली वितरण करने वाली कंपनी टाटा पावर दिल्ली डिस्ट्रीब्यूशन लिमिटेड (टीपीडीडीएल) अपने उपभोक्ताओं के लिए एक नई स्कीम लेकर आई है। इसके लिए कंपनी ने क्रॉम्प्टन ग्रीव्स कंज्यूमर लिमिटेड के साथ एक करार किया है, जिसके माध्यम से उपभोक्ताओं द्वारा बिजली की बचत पर जोर दिया जाएगा। टीपीडीडीएल द्वारा बिजली उपकरण के अधिकतम खुदरा मूल्य (एमआरपी) पर 60 फीसदी की छूट दी जाएगी, ताकि अधिक से अधिक उपभोक्ता ऐसे उपकरण खरीदें और बिजली की बचत करें। कंपनी के प्रवक्ता सिद्धार्थ सिंह के अनुसार स्कीम की शुरुआत पांच अप्रैल से हो गई है और आगामी छह माह तक दोनों जिला में रहने वाले कोई भी उपभोक्ता एलईडी लाइटिंग उत्पादों की संपूर्ण रेंज में 11 आइटम 'डिवन ग्लोबल्स, ट्यूब लाइट, पैनल और डाउन लाइट्स' खरीद सकेंगे। उपभोक्ता अपने इलाके में स्थित ग्राहक सेवा केंद्र पर जाकर उपकरण खरीद सकते हैं।

एलईडी लाइट खरीदने पर 60% तक छूट

बिजली बचाने के लिए अधिक से अधिक उपभोक्ताओं को जोड़ा जा सके। इसके लिए अब उपभोक्ताओं के लिए एलईडी लाइट की नई रेंज उपलब्ध है। इस रेंज पर उपभोक्ताओं को 60 प्रतिशत तक की छूट दी जाएगी। इस योजना की शुरुआत टाटा

पावर दिल्ली डिस्ट्रीब्यूशन कंपनी ने की है। उपभोक्ता केंद्रों पर जाकर इन नई एलईडी लाइटों की खरीदारी की जा सकती है। इस रेंज में 11 तरह की लाइटें हैं, जिसमें डिव ग्लोबल्स, ट्यूब लाइट, पैनल और डाउन लाइट शामिल है। ऊर्जा संरक्षण को बढ़ावा देने के लिए यह छूट दी जा रही है। यह छूट 6 माह तक जारी रहेगी।

Vision of Tata Power Delhi Distribution Limited on EE/DSM

- Control, reduce and influence electricity demand;
- Encourage consumers to amend their electricity consumption pattern both with respect to timing and level of electricity demand for efficient use of energy;
- Reduce the environmental damage by reducing the emission of greenhouse gases; Supplement national level efforts for implementation of various DSM programs set out by the Bureau;
- Make strategic efforts to induce lasting structural or behavioral changes in the market that shall result in increased adoption of energy-efficient technologies, services, and practices;

Actions taken to achieve the vision:

- Dedicated DSM group created in the organisation.
- MoU signed with the following :
 - a. BEE under its “Capacity Building Program”
 - b. M/s EESL for UJALA and Super Efficient Appliances.
 - c. M/s TERI to carry out Energy Audits and implementation of projects for Industrial consumers.
 - d. M/s Voltas for distribution of 5 star Air Conditioners.
 - e. M/s Crompton for distribution of 5 star LED lights.
 - f. M/s Atomberg for distribution of BLDC fans.
- Load Research carried out in association with M/s TERI and various Energy Efficiency scheme prepared and are under implementation.
- 7 ESCOs empanelled to implement Energy Efficiency projects
- Policy advocacy with Regulator to provide DSM budget.



AWARDS & RECOGNITIONS



Tata Power Wins the JRD QV Award-2021



GPTW Ranking 2021



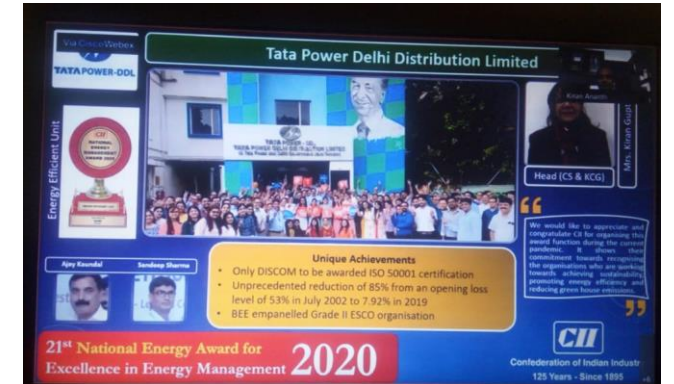
Golden Peacock Award-2020



CII Energy Efficiency Award-2019



CII-Innovative Financing in ESCO Model - 2019

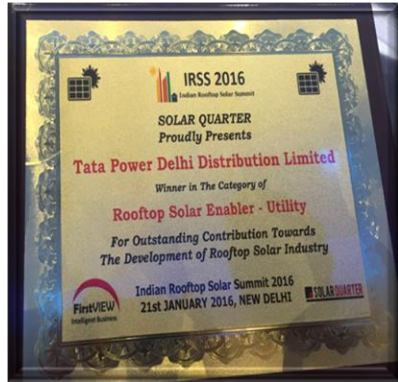


CII Energy Efficiency Award-2020



with you *Non-Stop*

AWARDS & RECOGNITIONS



Rooftop Solar Enabler-Utility Award



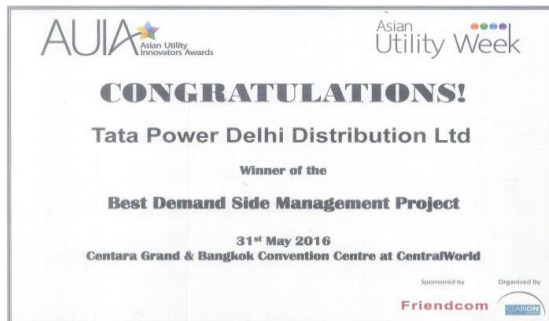
National Award for Promotion/Facilitation of Rooftop Solar Programs



National Award for Innovative Services beating 264 Companies



Green grid award at "4th Innovation with Impact Awards for Discoms" by ICC



Asian Utility Innovators Award for "Demand Side Management Project"



"Skoch Order of Merit" Award for DISCOM driven Renewable and Energy Efficiency Programs



"DISCOM driven ESCO model for energy efficiency improvement in C&I category load" shortlisted under Energy Saving Product / Service Award".

with you *Non-Stop*

Any other relevant information - Awards

S. No.	Award
1	Power Utility of the year Awards at 14th ASIAN POWER AWARDS 2018 held at Jakarta, Indonesia
2	Innovative Technology of the year for ADMS Awards at 14th ASIAN POWER AWARDS 2018 held at Jakarta, Indonesia
3	“OUTSTANDING GREEN CAMPAIGNER” AWARD organized by India Green Energy Awards at New Delhi, September’2018
4	Tata Power-DDL Bags 3 Awards at the ICC – 6th INNOVATION WITH IMPACT AWARDS FOR DISCOMS 2018 - i) Innovation with Impact, ii) Improve Operational Efficiency iii) Quality of Service
5	Tata Power-DDL bagged 3 awards at the India Smart Grid Forum Innovation Awards’2019 organized by ISGF during the India Smart Utility Week (March’19),under the following categories: i) Best Smart Grid project in India by Utility : Gold Award (for Advanced Distribution Management System) ii) Smart Technology of the Year: Diamond Award (for Big Data and Analytics) iii) Smart Technology of the Year : Certificate of Merit (for Field Force Automation
6	TATA Power-DDL wins “Innovative Financing and ESCO Model” Award at the National Energy Efficiency Circle Competition organized by Confederation of Indian Industry (CII) in 2017 and 2019
7	Tata Power-DDL has won the 'Best Performing Power Distribution Utility' Award at the CBIP Awards’2018,
8	TATA Power Delhi Distribution conferred with PLATINUM AWARD for Best Energy Efficiency Programs/ Projects of the Year at India Smart Grid Innovation Awards 2018 (March’2018)



www.tatapower-ddl.com

Thank You