

# **BSES Yamuna Power Ltd**

*A successful Public- Private-Partnership in Electricity Distribution*



हर दिन रोशन, हर पल रोशन... बीएसईएस से दिल्ली रोशन!

“Demand-Side Management to Double Energy Efficiency Improvements”

By:-

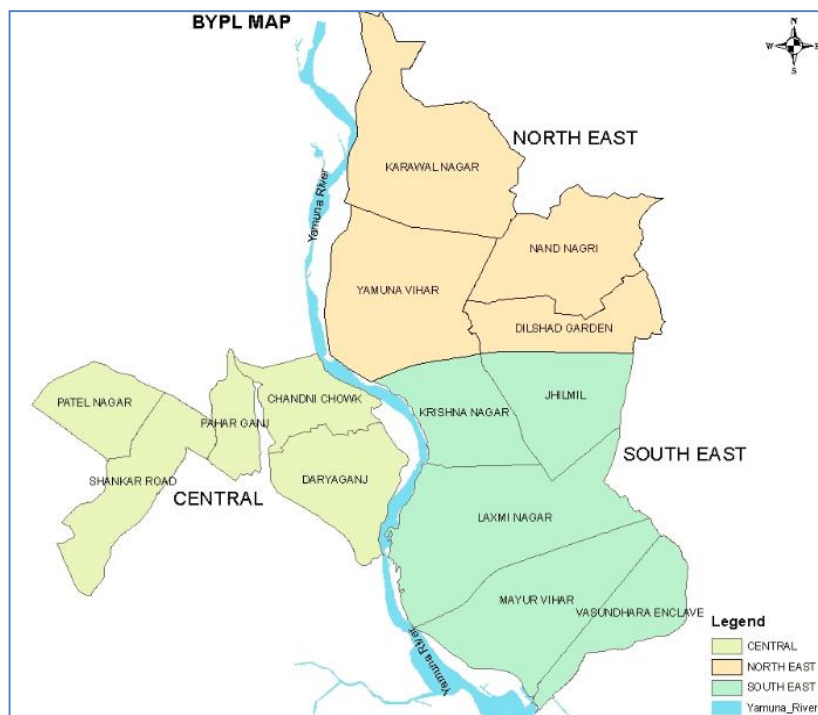
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GM, BYPL

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# About BYPL : Brief Profile



Parameters	Unit	
Distribution Area	Sq. km	200
No of customers	Million	1.8
Customer Density	Cons/Sq km	8420
Max System Demand	MW	1653
Annual Energy Requirement	MU's	7289
HT Cable Length	Ckt KMs	2125
LT Cable Length	Ckt KMs	5790
Power Transformers	MVA	3305
Distribution Transformers	MVA	3856
AT&C Loss	%	~ 7.5
Reliability Index	%	99.7

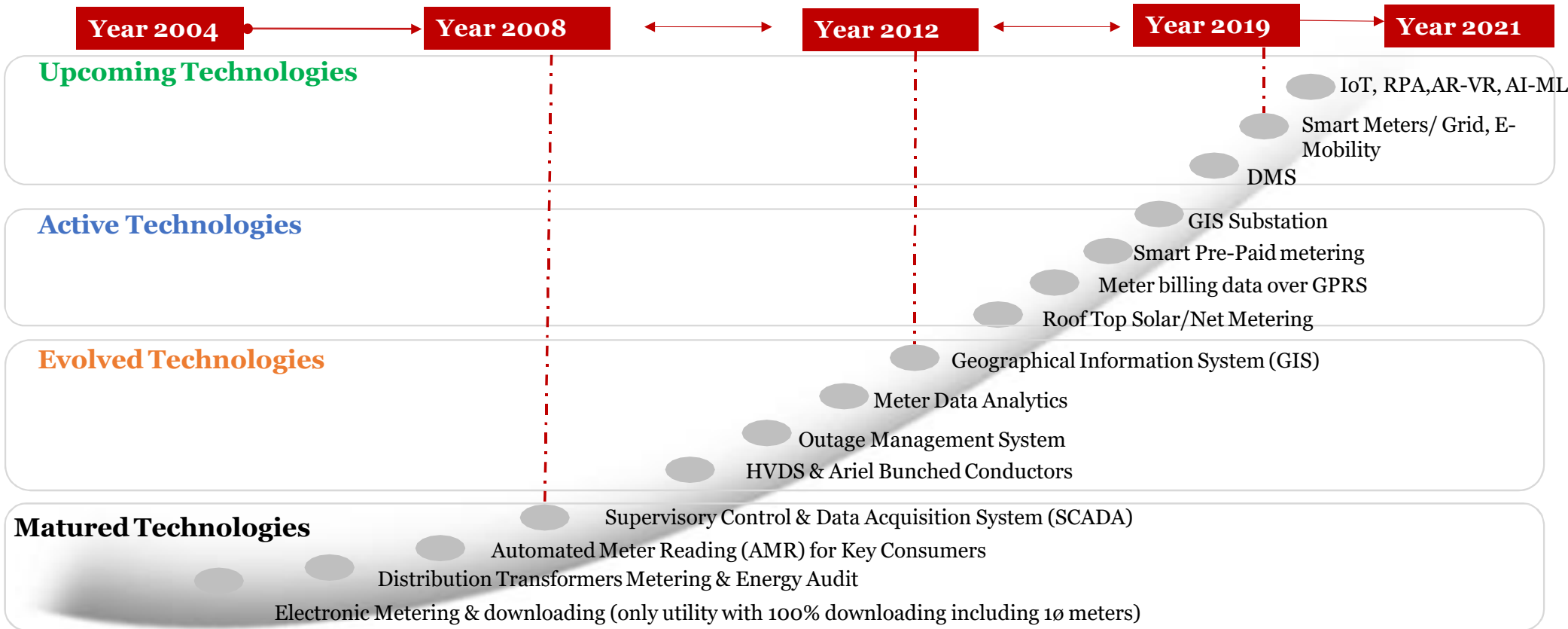
Public Private Partnership formed by unbundling & privatizing state-owned Discom in 2002

Joint Venture of Reliance Infra. and Govt. of NCT of Delhi (51:49)

Licensed for distribution of power in Central and East Delhi

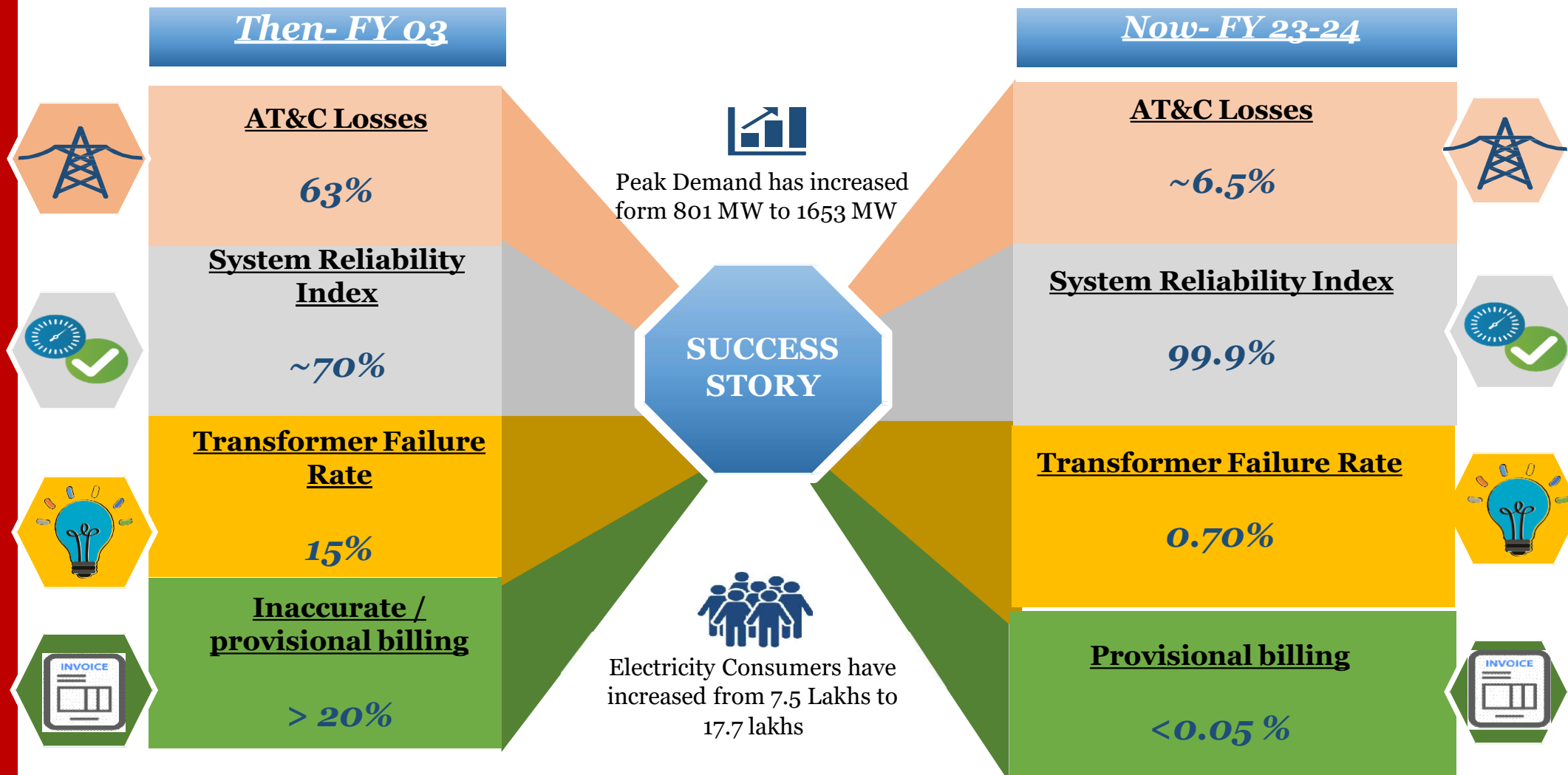
BYPL is supplying to the most congested area in Delhi with consumer density of 8420 consumer/Sq KM against Delhi average of 4120 consumer/Sq KM

# Technology Upgradation over the years

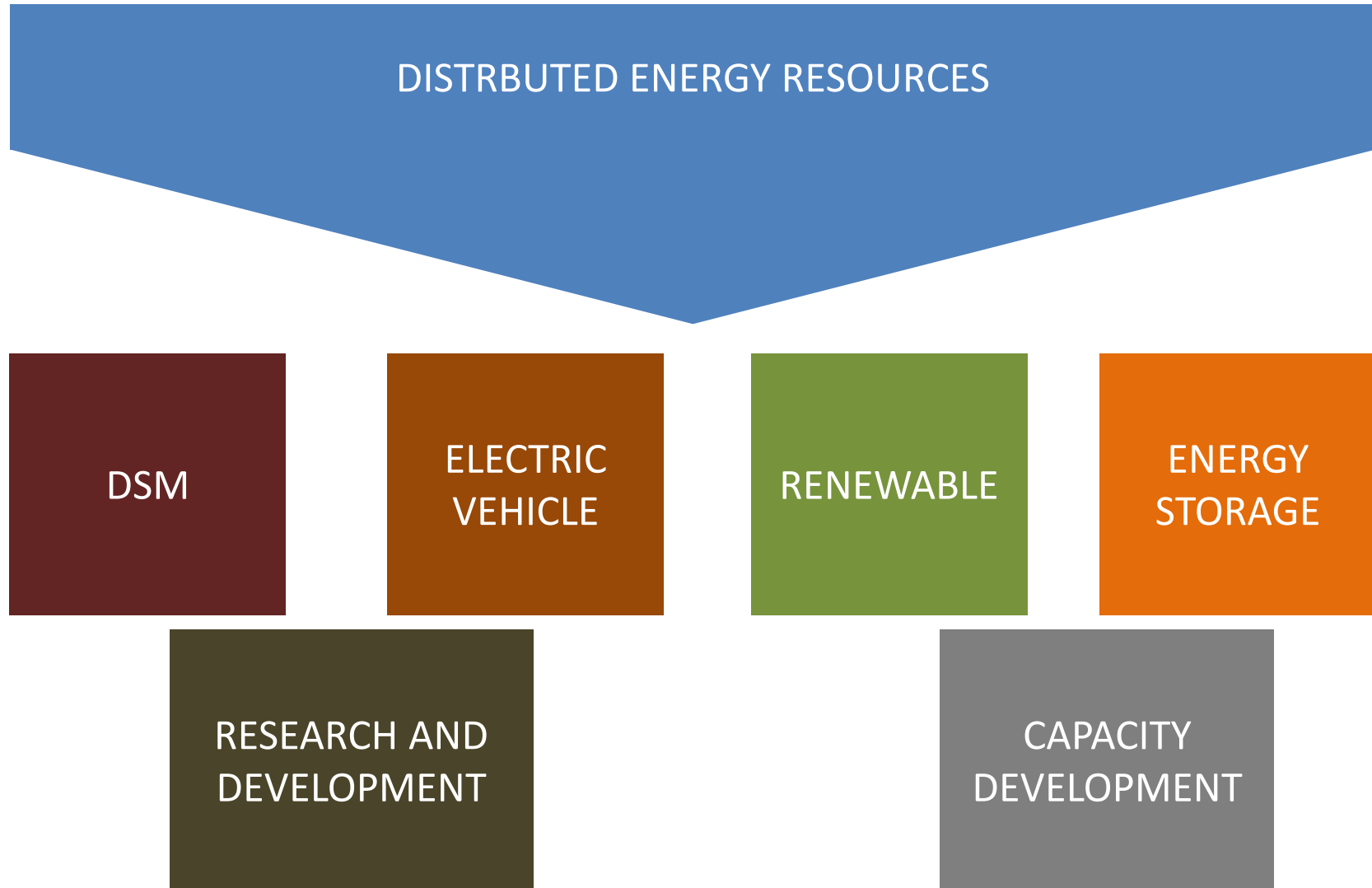


**Technological innovation has been a regular feature**

# Transformation Story



# Sustainability Options in DISCOM's



# Initiatives Undertaken

## **DSM and Energy Efficiency :**

- *Manual DR and Auto DR projects undertaken*
- *Appliance Replacement Schemes*
- *Energy Audit and Energy Efficiency awareness Program*
- *Capacity Building and demand side management program with BEE.*
- *Consumer Behaviour Study in association with TERI*
- *Green Division Program in association with TERI*
- *Energy Audit reports submitted as per PAT Cycle Compliances*
- *DSM Reports(Quarterly and Annual) Submitted to DERC*

## **E-mobility**

- *Induction of EV's in BYPL Fleet*
- *Study for impact of EV Charging & Renewables on Discom network in association with GIZ*
- *Deployment of EV chargers as a new business*
- *India's first Smart Managed EV Charging Station in association with Nordic Innovation*

# DSM Activities Undertaken

BYPL has undertaken many green and energy efficiency promotion related initiatives under Demand Side Management with due approval of Hon'ble commission. Some of the notable initiatives are :-

S.No.	Energy Efficient Appliance / Project	UoM	Nos	BYPL Remarks
1	LED Distributed	Nos	2122780	Since 2015-16; till Jan'22
2	Tube lights Distributed	Nos	33736	Since 2016-17; till Jan'22
3	Fans Distributed	Nos	3068	Since 2016-17; till Jan'22
4	ACs Distributed	Nos	4985	Since 2018-19; till Jan'22 *New scheme ongoing
5	Demand Response	MW	50	32 MW in 17-18 & 17.5 MW in 18-19

Till Aug'21

- Pilot for Auto DR already completed for air-conditioning.
- Program for clean cooking appliances with EESL planned.



# DSM Activities Contd.

S. No	Project	Brief Details and timeline	Status
1	A. Auto – DR  B. Manual DR	Auto DR Pilot for AC load (18 kW) at SRD building.  Manual DR- For commercial and Industrial Consumer i;e Hotels, Jal board, Mother dairy etc.	Average savings of 5 kW of load  DR Implemented for 15 mins interval and provided incentive.
2	Appliance replacement scheme	Replacement of old inefficient Ac's with 5 star AC's. Till 18.01.22	Rs 72 lacs disbursed as subsidy in FY21-22 (covered under ARR)
3	Promotion of Electrical appliances for clean cooking	Promotion of Induction cook-top & Electric cooker	Under discussion with EESL

# DSM Activity Undergoing

*BSES Yamuna Power Limited is working tirelessly to reduce the rising demand on consumer side.*

*There are following activities which are undergoing under demand side management :-*

*AC Replacement scheme – As per the petition submitted to DERC, BYPL has received an order to replace 3000 units of BEE 5 star super efficient AC's with power guzzling old AC's used by the consumers. The order is received on July 2023 and the scheme is applicable till July 2026. The details of the AC replacement scheme is as follows:-*

- The AC replacement scheme is only for the Domestic consumers in the DISCOM Periphery.*
- A single CA number can avail 3 AC in replacement of old AC.*
- A rebate and a salvage value will be provided in exchange of old AC.*
- The old AC will be discarded from the system and an E-waste certificate will provided to ensure save disposal of old AC's.*
- Till March 31st 2024- 295 units of AC's has been replaced.*

# Consumer Awareness Campaign



*BYPL organises Rallies, Campaigns & Nukkad Natak to propagate need & benefit of Energy Conservation.*

*In the last year BYPL has organized 26 Rallies, 100 Campaigns & 308 Nukkad Natak.*

# ***BYPL-BEE ASSOCIATIONS IN PHASE 1***

- 1. Preparation Of DSM Action Plan and Load Report.*
- 2. Under the capacity building of DISCOM's in BYPL Phase I, 38 trainers were trained and 78 circle level officers were trained.*
- 3. These capacity building programs has proved to be a milestone in DSM program for residential as well as commercial sector.*
- 4. These trainers are further training other Officials*

<b>Program Type</b>	<b>ToT</b>	<b>Circle Level Officers</b>
Participants	38	78



# ***BYPL-BEE ASSOCIATION IN PHASE 2***

*BYPL & BEE has signed an MoU in March 2023 for “ Capacity Building of DISCOM” & Demand side management. The aim of this program is peak load reduction and to curb the exponentially increasing demand at consumer end.*

*The salient features of this program is as follows:-*

- 1. The primary aim of the program is to identify four DSM measures and get them implemented.*
- 2. Two consultants(Financial & Technical) are deputed for the successful implementation of the program.*
- 3. Organizing capacity building and training workshop for energy saving campaigns.*
- 4. The four measure includes AC replacement scheme, Pilot program on home energy management system, Solar generation upscaling and Fan replacement scheme.*

# Demand Response (DR) : Introduction

***Demand Response is an inclusive program for the consumers, by the consumers for benefit of society as a whole***

- *Demand Response is a voluntary program for reduction of instantaneous power demand*
- *Consumers participate for demand curtailment when requested by discom during periods of high system peak demand or when the system stability gets jeopardized.*
- *Consumers can be incentivized for reducing demand during events of requests for carrying out DR program*

**Demand Response  
In pursuit of megawatts**



- ✓ Managing Peak Demand
- ✓ Inclusive participation of Utility & Consumer
- ✓ Minimize forced outages
- ✓ Minimize burden on resources
- ✓ Win – Win situation for Consumer and Utility

# DR @ WhatsApp

12:46 AM 83%

**BYPL Pilot DR Program**  
Jeenaa, Meenu, Nalwaya, Pragya, बी पी, +...

Dear All,

BYPL request you to participate in the 'Demand Response' event as per following schedule today:

**Date.** : 19/05/2017  
**Start time** : 19:00 hours  
**End time** : 20:00 hours

We seek your kind cooperation in making DR Event successful.

You may follow the tips as suggested.

A confirmation message in this regard will be appreciated.

Regards  
Team BYPL  
19/05/2017...15:05 hours 3:07 PM ✓

You can follow these tips as per applicability during the DR event.

1. Turn off all non-essential indoor/outdoor lighting , signage, window displays and office equipment not in use.
2. Turn off all decorative features, such as fountains, lighting and ambient audio and video displays.

Type a message

12:46 AM 83%

**BYPL Pilot DR Program**  
Jeenaa, Meenu, Nalwaya, Pragya, बी पी, +...

+91 83770 03317 ~Chetak singh  
Dear Sir;  
We are confirmed reduces more than 600 kw electrical load.  
During 19:00 to 20 hrs  
Regards;  
Chetak Singh  
Mother Dairy F&V Pvt LTD.  
Patperganj Delhi-110092 4:37 PM

+91 95407 33772 ~Suneel Kumar  
We confirmed reduces around 400 KW load  
Suneel kumar  
Rajiv Gandhi Super Speciality Hospital  
Tahirpur Delhi 5:56 PM

+91 99717 98032 ~Brajesh kumar  
Cp mayur vihar will save 200 kw 6:21 PM

+91 83770 03317  
Dear Sir;  
We are confirmed reduces more than 600 kw e...  
Thank you for your cooperation Sir 6:31 PM ✓

+91 95407 33772  
We confirmed reduces around 400 KW load

Type a message

# ***ENERGY CONSERVATION AND HOME AUTOMATION***

BYPL & Schneider Electric India Pvt Ltd (SEIPL) have signed an MoU to promote initiatives in the areas of safety, energy conservation, smart home appliances & automation. The objective of this MOU was to establish the basis for a cooperative institutional relationship for various initiatives in the area of safety, home appliances, automation, etc. such as:

- (a) Enhanced training program to BYPL trained electricians*
- (b) Awareness and capacity building through BYPL consumers for RCCBs and APFCs*
- (c) Home Automation survey and pilots*
- (d) Other related activities in the area of safety, home appliances, home/office automation, energy efficiency, etc.*





# ***ENERGY CONSERVATION AND HOME AUTOMATION PROGRESS***

*There has been a significant progress in BYPL & Schneider Electric India Pvt Ltd (SEIPL) initiative. With a help is load research we have identified potential consumers who's load is coincides with BYPL peak load.*

- To curb this peak demand we have decided to do a pilot program with 51 household which was earlier decided to be 100 households.*
- The installations was completed by October 2023 and more than 100 trigger events was done to prepare an interim report on the effects of this program.*
- We are further looking forward to increase the scalability of this program.*
- Few interactions were also done with the RWA members regarding the feedback of devices and energy conservation report.*



# Smart Innovation Norway

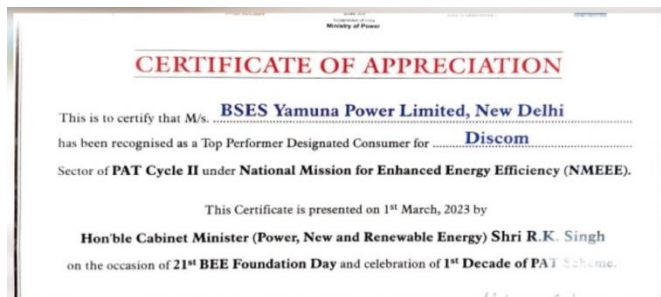
*BYPL has signed an MoU with Govt of Norway to support "Smart Innovation Norway" to drive energy efficiency*

- BSES DISCOMs will be beneficiaries for running the Automatic Demand Response (ADR) program under the Demand Response Driven Energy Advancement (DREAMS) project, which is a part of the India-Norway Energy Task Force focusing on EV.*
- BYPL will be assisted by Smart Innovation Norway, IIM Ahmedabad & Research, and Innovation Circle of Hyderabad (RICH) on this pilot to undertake pioneering work in demand side management.*
- Norwegian Embassy in New Delhi & Smart Innovation Norway IIM Ahmedabad: Research and Innovation Circle of Hyderabad BYPL signed a three-year project funded by the Royal Norwegian Embassy in India.*



# Awards And Recognition

1. *BSES Yamuna Power Limited has been awarded “Top performer designated consumer for DISCOM sector” of PAT cycle 2 under National Mission for Enhanced Energy Efficiency (NMEEE).*
2. *BYPL Won award for Excellence in Energy Management Energy Efficiency Summit 2022 Organised by CII.*
3. *BYPL Clinches Outstanding performer award for consumer awareness at IPPAI 2023.*





*“BYPL is fully committed to deliver quality services to Delhi consumers ”*

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**Thank You**