

# **SESSION - 2: POLICIES AND REGULATIONS FOR THE DIGITAL DISCOM**

## **Managing and Influencing Customer Perceptions and Preferences**

**27<sup>th</sup> November 2020**

**Presented by  
Amal Sinha  
CEO,  
BSES Rajdhani Power Limited**

# Agenda

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- BSES Rajdhani Power Limited – A Brief Profile
- Customer centric digital initiatives
- India's first Behavioural Energy Efficiency Program
- Key Takeaways

# BSES Rajdhani Power Limited – A Brief Profile

Distribution Area	750 sq. Km
No. of customers	2.55 Mln.
Customer Density	3400 /sq Km
Max Demand met (Till Date)	3211 MW
Annual Billed energy FY19	12,194 MU
AT&C Loss FY19	8.06 %

BRPL

BYPL

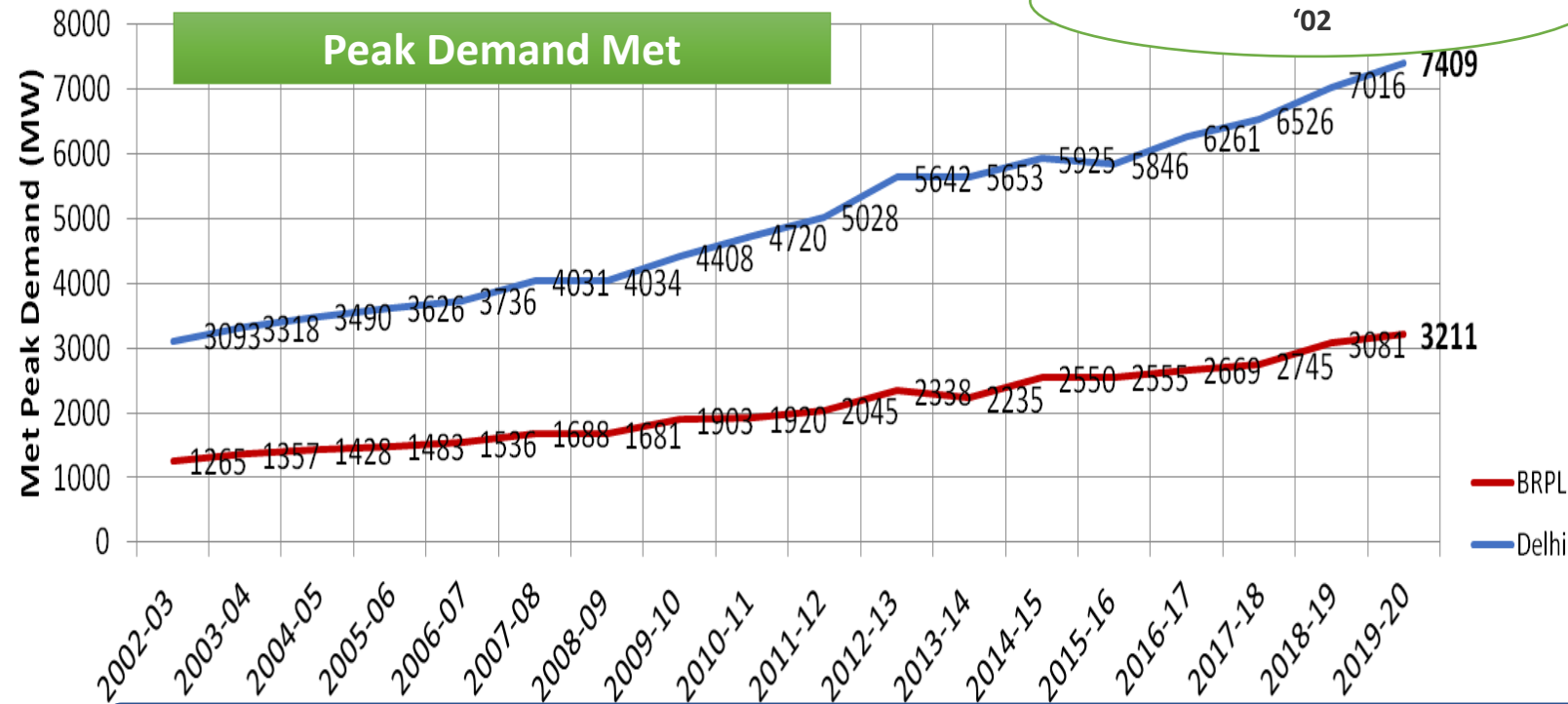
## Consumer Mix

About 86% residential contributing to ~70% consumption

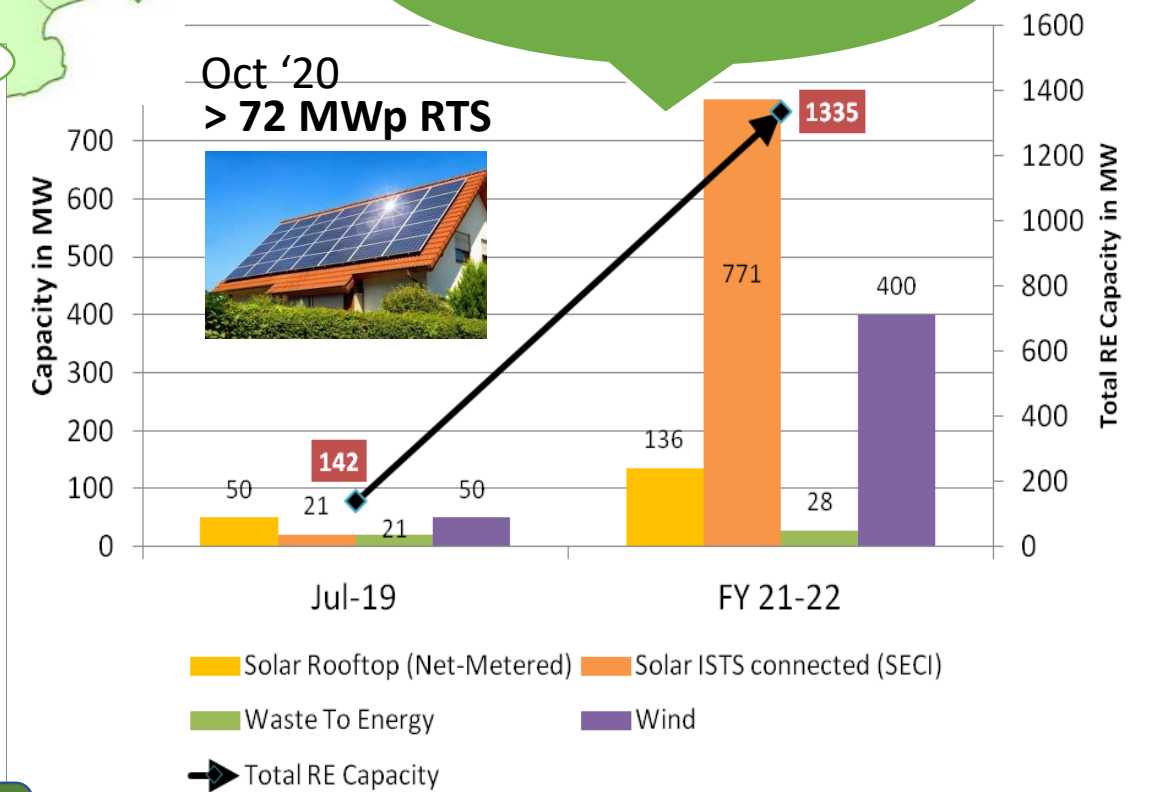
RE ~ 29% of portfolio (1300MW+) by '22-23

> 43% reduction since Year '02

## Peak Demand Met



Oct '20  
> 72 MWp RTS



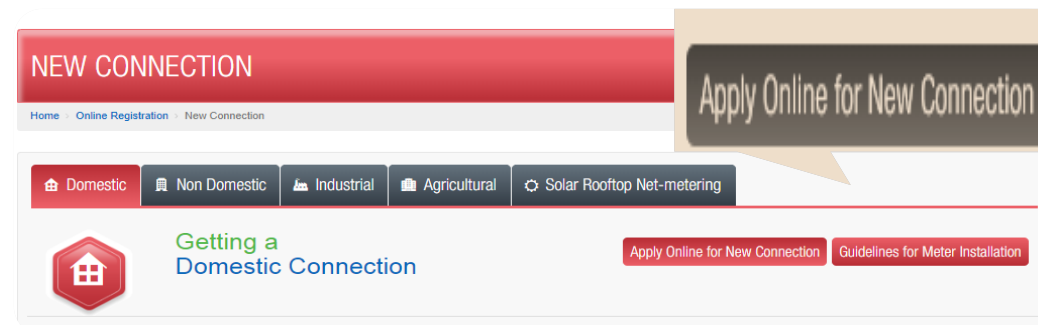
The largest serving Distribution Utility in the National capital

# Customer centric digital initiatives

**BSES Aap Ke Sath – eRWA Meets** – a first of its kind initiative for virtual online meetings with over 2000 RWAs.



**ePermanent Lok Adalat** - for amicable settlement by customers through virtual mode



**eApplication** - Customer can apply online for new connection & other services at his convenience



**Self Service** – Option for Customer to submit the self meter reading.

# Customer centric digital initiatives

## eCustomer Service – Host of Services through WhatsApp

### 1. Meter Reading Information

Know your meter reading schedule  
Submit for Self Meter Reading

### 2. Billing Information

Get your Latest Bill  
Understand your Current Bill & Consumption  
Get your Last 5 months Bill details  
Register to get E-bill

### 3. Payment Information

Pay your Bill  
Get details of your last 5 Bill Payments

### 4. Complaint Registration

Register complaint for No Supply  
Register complaint for Low Voltage  
Register complaint for Current Leakage  
Register complaint for Fire



## Ease of Payment – Customer can pay through link provided in Bill PDF

**BSES** Date of Print Out: 04.09.2020 BSES Rajdhani Power Ltd.

**Bill of Supply for Electricity**  
GSTIN: 07AAGC3070223

**Due Date:** --

Name: PUNAM LAUL  
Billing Address: C-767 GF NEW FRIENDS COLONY, NEW DELHI NEAR, DELHI 110065

Sanctioned Load: 14.00 (kW)  
Contract Demand: --  
M D 1: --  
Power Factor: 1.000  
Poly No: -SNRPA35051  
Meter Reading Status: DL  
Cycle No: -DC

CA No.: 150028316  
Consumption Date: 20.11.2019  
Meter Type: SP5K  
Supply Type: LT  
Bill No.: 100125948271  
Bill Rate: Actual  
O.D. No.: R/20160101044005  
CCTV Tagged: No  
Street Light Tagged: No  
W-FI Tagged: No

Mobile / Tel. No.: 9971836228  
Email ID: --  
District / Division: New Friends Colony  
Walking Sequence: NRC100767ABAA  
Bill Month: SEP-20  
Bill Date: 30-09-2020

Tariff Category: Domestic [ Residential ]

**Customer Care Centre No.: 29999707**

Meter No.	Units	Bill of Consumption (Current)		Bill of Consumption (Previous)		Multiplication Factor	Current Consumption	
		Date of Meter Reading	Reading	Date of Meter Reading	Reading		Units	Units
27141078	KVAh	29-08-2020	79,275.00	29-07-2020	79,275.00	1.00	31	6.00
27141078	kWh	29-08-2020	83,884.00	29-07-2020	83,884.00	1.00	31	6.00
27141078	kVAh	29-08-2020	83,884.00	29-07-2020	83,884.00	1.00	31	6.00

**Billing Details**

Sl. No.	Particulars	Sub-Item (Energy Charges)		Sub-Item (Taxes & Fees)		Total
		Amount	Unit	Amount	Unit	
1	Energy Charges	11.44	Rs.	1.04	Rs.	12.48
2	Energy Tax @ 10.00%	1.14	Rs.	0.00	Rs.	1.14
3	Energy Fee @ 1.00%	0.12	Rs.	0.00	Rs.	0.12
4	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
5	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
6	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
7	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
8	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
9	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
10	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
11	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
12	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
13	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
14	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
15	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
16	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
17	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
18	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
19	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
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21	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
22	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
23	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
24	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
25	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
26	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
27	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
28	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
29	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
30	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
31	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
32	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
33	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
34	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
35	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
36	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
37	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
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39	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
40	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
41	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
42	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
43	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
44	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
45	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
46	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
47	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
48	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
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55	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
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57	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
58	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
59	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
60	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
61	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
62	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
63	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
64	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
65	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
66	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
67	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
68	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
69	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
70	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
71	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
72	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
73	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
74	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
75	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
76	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
77	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
78	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
79	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
80	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
81	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
82	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
83	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
84	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
85	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
86	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
87	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
88	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
89	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
90	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
91	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
92	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
93	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
94	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
95	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
96	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
97	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
98	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
99	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00
100	Energy Charge @ 0.00%	0.00	Rs.	0.00	Rs.	0.00

**Post Dates / Refunds / Subsidy**

Amount	Period to which it relates	Refund	Other Charges, if any	Total Charges Payable	Bill Amount Payable
121.90	0.00	0.00	0.00	121.90	121.90

**Amount not immediately payable, if any:**

Amount	Period to which it relates	Refund	Other Charges, if any	Total Charges Payable	Bill Amount Payable
0.00	0.00	0.00	0.00	0.00	0.00

**Due Date of Payment**

04.09.2020

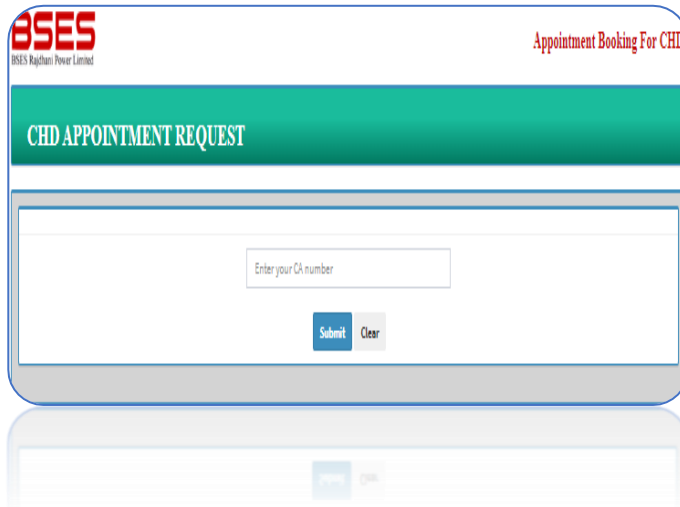
**PAYNOW**

Bill month: SEP-20  
Date: 04.09.2020  
NEW DELHI-110019



# Customer centric digital initiatives

**Safety First**– Online prior appointment to visit Customer Care Centers ensuring social distancing.

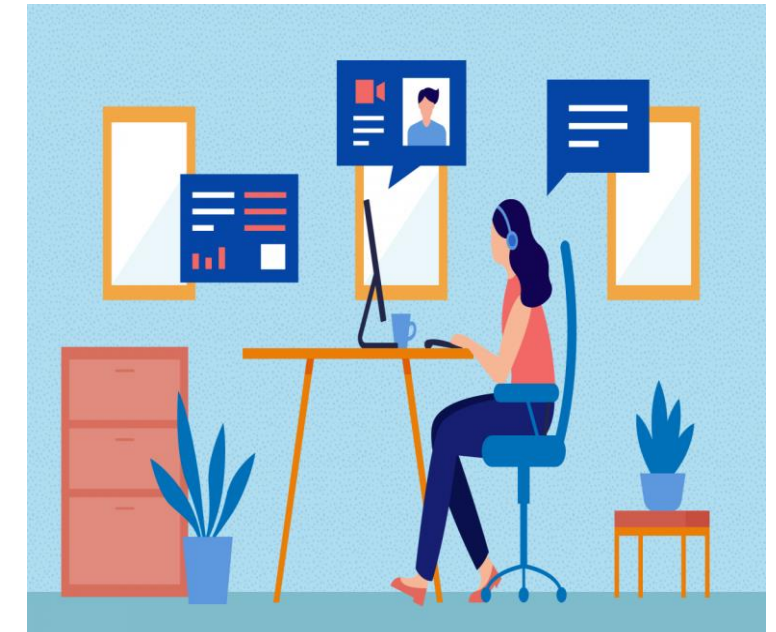


The screenshot shows a web form for BSES (BSES Rajdhani Power Limited) titled "Appointment Booking For CHD". The form has a green header with the text "CHD APPOINTMENT REQUEST". Below the header, there is a text input field labeled "Enter your CA number". At the bottom of the form, there are two buttons: "Submit" and "Clear".

**Onsite Service Camp** – For our Senior Citizens and non tech savvy customers

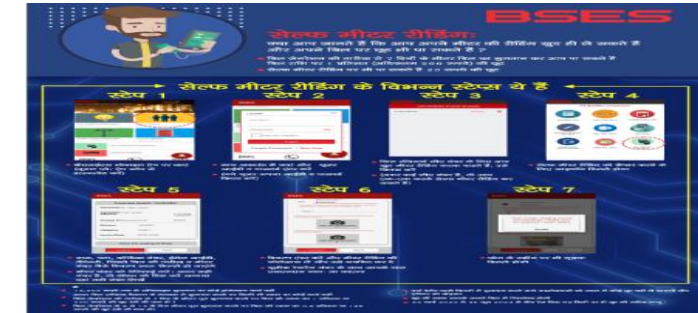
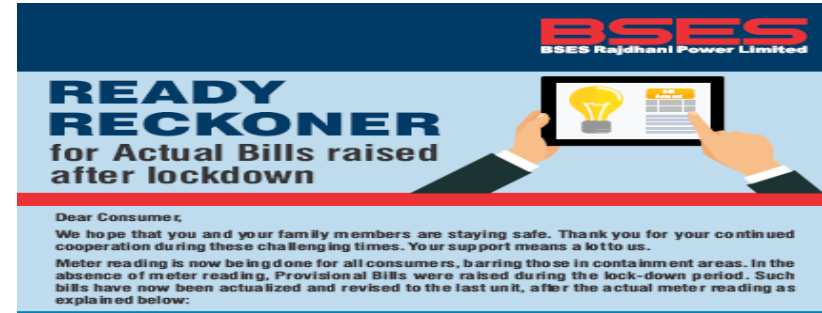


**24X7 Call Center service continuity**  
– Agents handling calls through Work from Home technology.



# Customer centric digital initiatives

**Customer Communication** – Proactive communication to customers on various updates and digital initiatives.



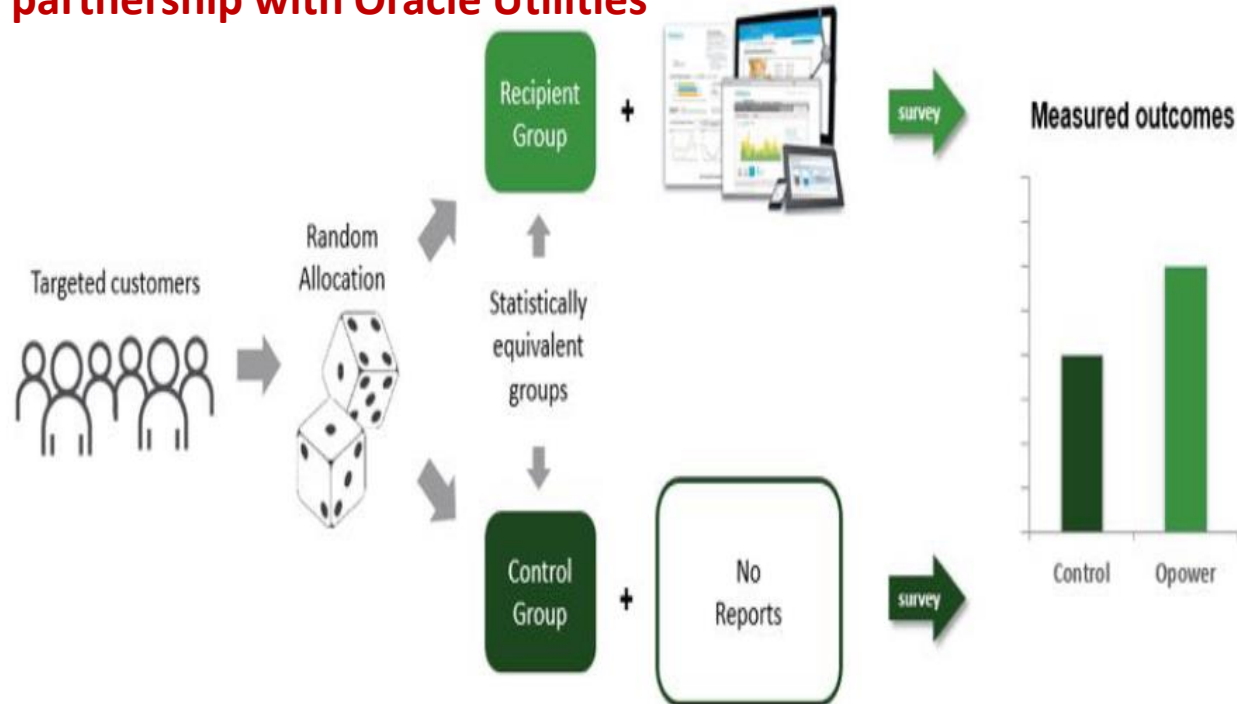
## Digital Services at a Glance

ONLINE SERVICES	WEBSITE	MOBILE APP	EMAIL	WHATSAPP	CALL CENTER	SMS SERVICES
Bill Information	✓	✓	✓	✓	✓	✓
Pay Bill	✓	✓	✓	✓		✓
Bill Explanation			✓	✓	✓	
Billing & Meter Related Complaint	✓	✓	✓		✓	✓
Register for eBill	✓	✓	✓	✓	✓	✓
Register Load Change Request	✓	✓			✓	
Demand Note Payment	✓	✓				
Register New Connection Request	✓	✓			✓	
Self Meter Reading		✓		✓		✓
CHD Appointment	✓	✓			✓	
No Supply Complaint	✓	✓	✓	✓	✓	✓
Outage Update	✓	✓	✓	✓	✓	✓
Share Feedback	✓	✓	✓		✓	



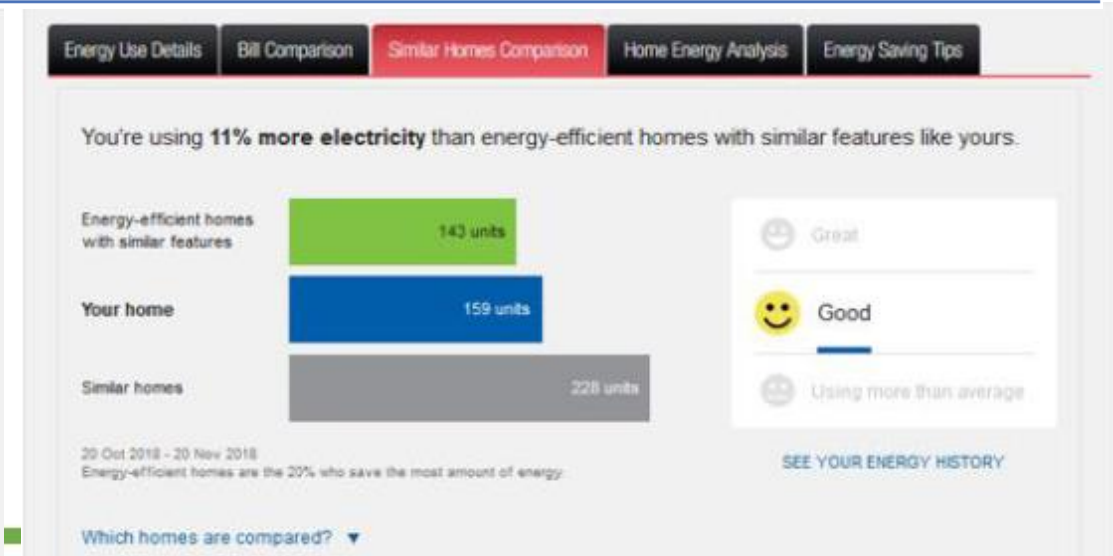
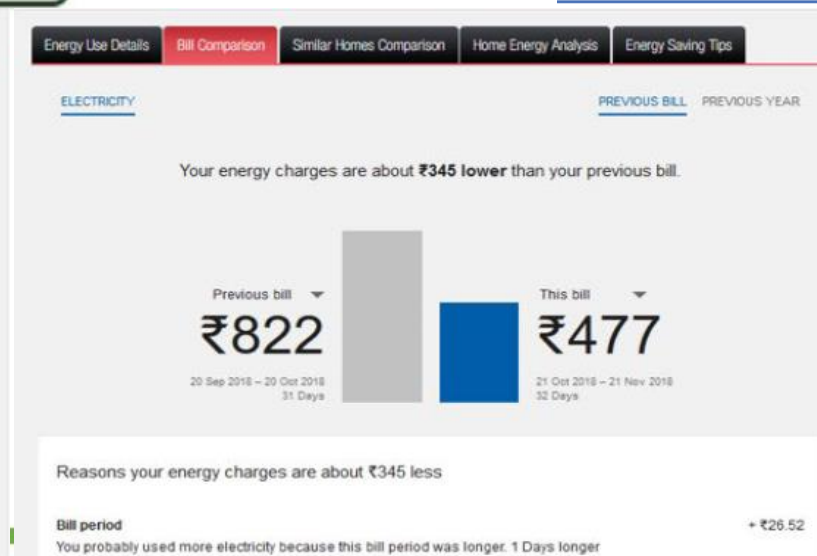
# India's first Behavioural Energy Efficiency Program

In partnership with Oracle Utilities



Track	Treatment Group	Control Group	Total Selected	Expected Minimum Detectable Effect (12 months of results)
Track 1: 50-200 kWh/month	48,000	14,400	62,400	0.50%
Track 2: 200-400 kWh/month	96,000	28,800	124,800	0.35%
Track 3: >400 kWh/month	56,000	16,800	72,800	0.46%
<b>Total</b>	<b>200,000</b>	<b>60,000</b>	<b>260,000</b>	<b>0.24%</b>

Spread across 10 Divisions





# Customer Engagement – Survey results



## **Strong BSES Rajdhani customer engagement with Home Energy Reports**

- 53% read communications, up to 70% for those receiving email reports
- 81% like the reports, compared to only 8% disliking
- 81% motivated to reduce their energy usage

## **Large gains in satisfaction observed for program recipients when compared to non-recipients:**

- +9% BSES Rajdhani wants to help me reduce my home energy use
- +7% BSES Rajdhani wants to help me save money
- +8% BSES Rajdhani provides useful suggestions on ways I can lower my monthly bills
- +6% BSES Rajdhani is a trustworthy source of information on energy efficiency
- +6% BSES Rajdhani helps me manage my monthly energy usage
- -4% likelihood to contact BSES Rajdhani in the past three months

## **Significant demand for digital communications**

- Email is the preferred medium for customers to receive the Home Energy Report communications
- Opportunity to increase online energy management tool awareness (from 9% overall), as tools are highly rated by users who are aware



## **• Survey of 2,554 BSES Rajdhani customers**

- 1,763 interviews with recipients of Home Energy Report (HER)
- 791 interviews with “control” customers (non-recipients to be used as comparison)
- Includes data from 1140 online, 1112 telephone, and 302 in-person surveys

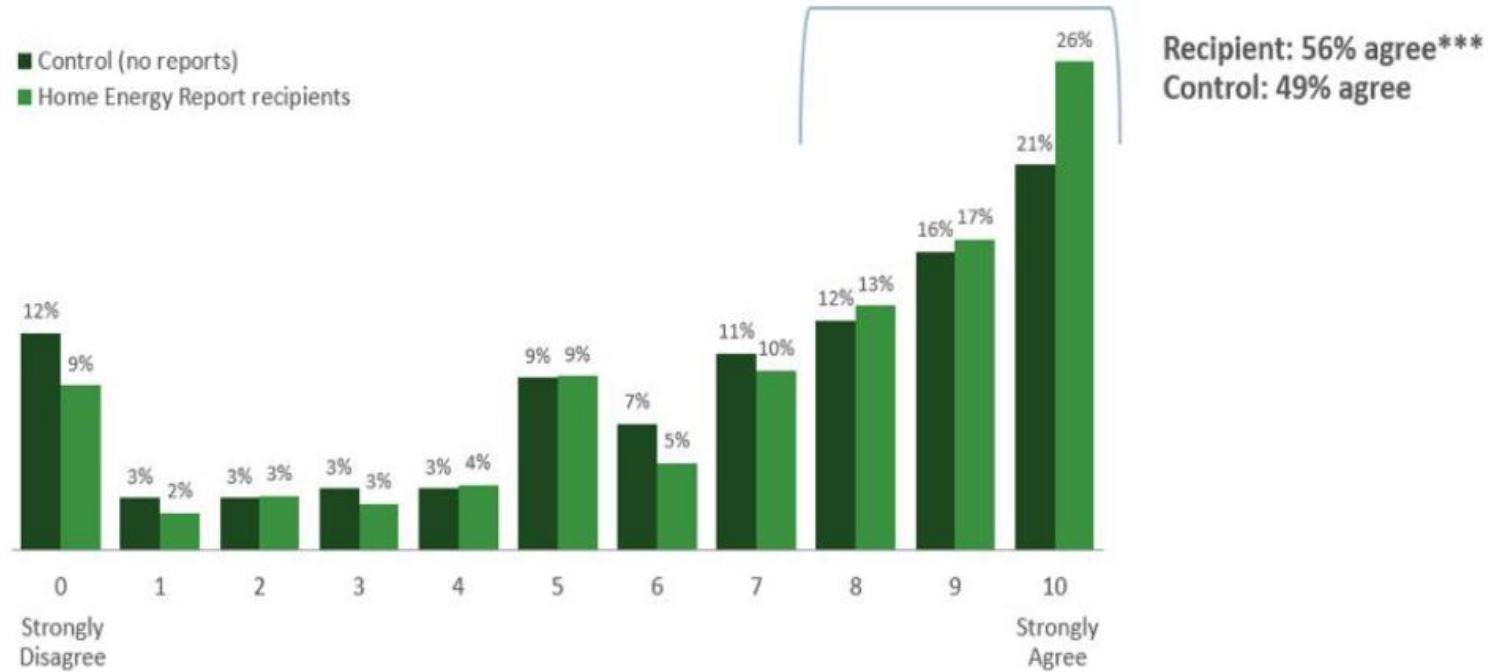
**Targeted consumer communications**

**Impactful means for influencing consumers preferences**

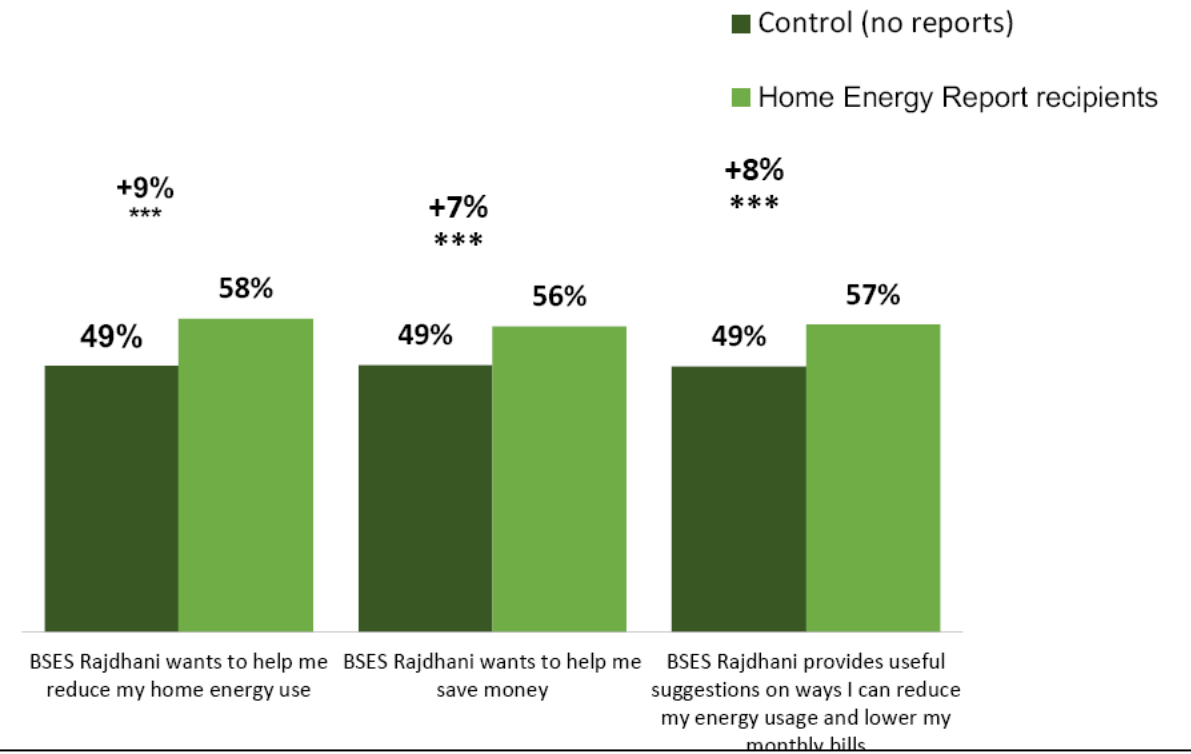
**Improves awareness & perception**

# Influencing consumer perceptions - Glimpses

**Customer Rating: BSES Rajdhani wants to help me save money**  
1736 Home Energy Report recipients; 777 Home Energy Report controls



Report recipients consider BSES more trustworthy than those not sent communication



# Managing consumer perceptions

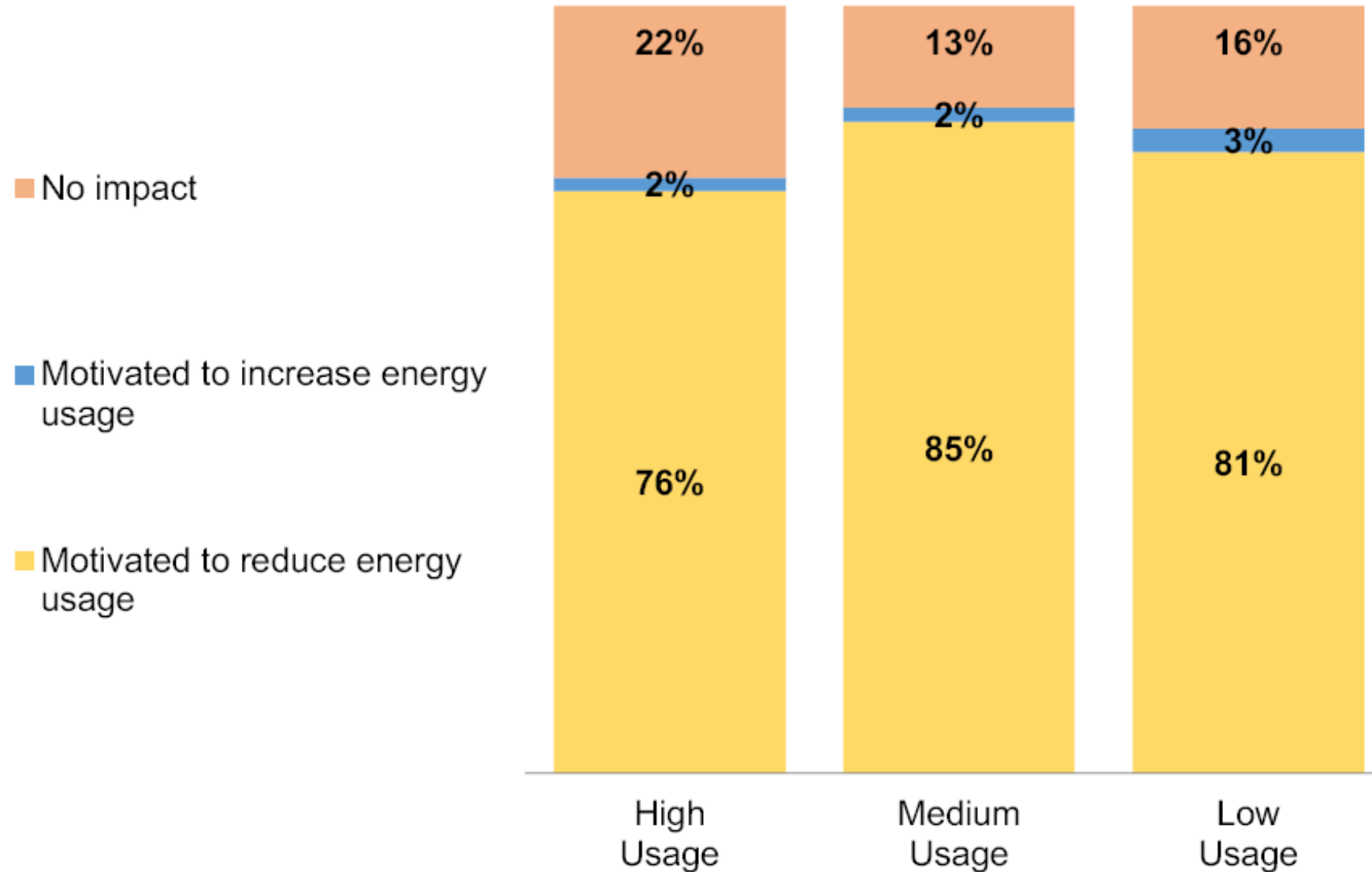
Difference Between Report Recipients and Non-Recipients by Usage Group

Metric	High Usage	Medium Usage	Low Usage
BSES Rajdhani wants to help me reduce my home energy use	+11% <sup>***</sup>	+10% <sup>***</sup>	+4%
BSES Rajdhani wants to help me save money	+10% <sup>***</sup>	+10% <sup>***</sup>	-1%
BSES Rajdhani provides useful suggestions on ways I can reduce my usage	+9% <sup>***</sup>	+10% <sup>***</sup>	+3%
BSES Rajdhani provides a variety of energy efficiency programs	+6%	+11% <sup>***</sup>	0%
BSES Rajdhani is a trustworthy source of information on energy efficiency	+10% <sup>***</sup>	+7% <sup>***</sup>	0%
BSES Rajdhani helps me manage my monthly energy usage	+2%	+12% <sup>***</sup>	+3%
Contacted BSES	-3%	-9% <sup>***</sup>	+3%
Sees usage decreasing	+2%	+11% <sup>***</sup>	+1%

# Managing consumer perceptions

How has the Home Energy Report motivated you to change your usage?

807 recalling and reading HER recipients





## Which actions did you take?

*Switch off unnecessary lights etc., Also started using LED lights, Further planning to exchange existing power consuming devices to energy efficient devices*

*Put off the fans and other gadgets. Put TV on standby when not watching or put it off when not to use. Run ACs on more than 25, run usually on 26 to 28. Switch off quickly when not required. Changed all previous bulbs with LED bulbs obtained from customer centre, BRPL, etc.*

*Installed energy efficient electric items. Avoid wastage of energy.*

*I have read the report in detail and discussed with my family members and office colleague. I find it important to know the actual way of doing somethings like energy savings especially when most people would be willing to do the same but do not know the actual ways.*

- Digital engagement with consumers helps manage consumer perceptions & preferences
- Demand side flexibility utilization is a must for RE integration
- Behavioural Energy Efficiency / Behavioural Demand Response programs least expensive means of influencing & managing consumer perceptions
- Such programs targeted on residential consumers in continuum helps shape Discom's communication strategy & meaningful engagement

# Thank You

**India Smart Grid Forum**  
CBIP Building, Malcha Marg,  
Chanakyapuri,  
Delhi-110021  
Website: [www.indiasmartgrid.org](http://www.indiasmartgrid.org)