CUSTOMER BEHAVIOR AND ENGAGEMENT IN A SMART GRID PILOT

BEHAVIOR, ENERGY & CLIMATE CHANGE CONFERENCE (BECC)

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WHY I AM HERE TO TALK TO YOU…

1. Opt-Out Program
2. Push the Limits
3. Customer Engagement
GOAL OF DEMAND RESPONSE

Electricity Use Over the Day

- Desired Usage
- Typical Peak Usage

Hour of the Day

Event Hours

Peak Demand
BASIC STRUCTURE OF THE SES PILOT

PRICING PLANS
- Critical Peak Pricing: 95%
- Peak Time Rebate: 5%

TECHNOLOGIES
- Portal Access: 91%
- In-Home Display: 6%
- Programmable Controllable Thermostat: 2.3%
- Smart Plug Load Control Device: 2%

Enrollment:
- Default: 6%
- Default: 2.3%
- Default: 2%
THREE UNIQUE CHARACTERISTICS

1. Opt-Out Program
2. Push the Limits
   Length and frequency of events
3. Customer Engagement
98% retention rate in 2015
## PUSHED THE LIMITS

<table>
<thead>
<tr>
<th></th>
<th>Summer 2015</th>
<th>Summer 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>20 Events</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>9 8-hour events</strong></td>
<td></td>
<td><strong>10 8-hour events</strong></td>
</tr>
<tr>
<td><strong>17 days part of multi-day events</strong></td>
<td></td>
<td><strong>16 days part of multi-day events</strong></td>
</tr>
</tbody>
</table>
PUSHED THE LIMITS

Program satisfaction barely affected after several back-to-back 8-hour long events

Program Satisfaction Scale of 1 to 7
1 = Low Satisfaction, 7 = High Satisfaction

(Source: Navigant)
EVENT NOTIFICATION
CUSTOMER ENGAGEMENT

- Homeview App on Smartphone
- Smart Thermostat
- CEIVA Digital Picture Frame
- Automated Phone Message
- SMS Text Message
- Email

EVENT NOTIFICATION
EDUCATION
CUSTOMER ENGAGEMENT

Sources of Information

- Program website
- Monthly and quarterly reports
- Program Welcome/New Mover kit
- National Grid call center
- Direct interaction with National Grid staff
- Social media
- Sustainability Hub
**Cool Your Home without AC**

Don't have an AC? Here are energy efficient ways to keep your house cool this summer.

- **Open the windows and blinds at night**
  
  Use wind as natural ventilation during nights to let in cool air, and close blinds during the day to block sun from coming in.

- **Get the right window unit**
  
  Look for an ENERGY STAR® certified AC window unit. Also, consider buying a programmable AC so you can turn it down or off for Peak Events.

- **Invest in fans**
  
  Fans create a wind chill effect cooling the air temperature around you. Fans cool people, not rooms, so make sure to turn them off when you leave a room.

**What appliances did you avoid using during the Event?**

<table>
<thead>
<tr>
<th>Summer</th>
<th>Reported # of Unused Appliances During Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.2</td>
</tr>
<tr>
<td>2016</td>
<td>3.7</td>
</tr>
</tbody>
</table>

(Source: Navigant)
SUSTAINABILITY HUB
CUSTOMER ENGAGEMENT

7,800+ customers have come into the Hub and there have been 500+ meetings in the community room

(Source: National Grid)
NATIONAL GRID’S SMART ENERGY SOLUTIONS PILOT

An interim report can be found at:
http://web1.env.state.ma.us/DPU/RoomAPI/api/Attachments/Get/?path=10-82%2fNGrid_Smart_Energy_Solutions_R.pdf

Expected release of the final program report is Spring 2017

If we do not get to your question, please contact:

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And remember:
1. Opt-out
2. Push the Limits
3. Customer Engagement
### Table E-1. Total and Percentage Savings for Residential Customers

<table>
<thead>
<tr>
<th>Impact Category</th>
<th>Total Savings</th>
<th>Percentage Savings – Active Customers (n=2,524)</th>
<th>Percentage Savings – All Customers (n=10,882)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Event Savings – Average*</td>
<td>0.55 MW</td>
<td>16.8%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Peak Event Savings – Maximum**</td>
<td>1.59 MW</td>
<td>29.0%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Energy Savings in 2015***</td>
<td>2,300 MWh</td>
<td>4.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Bill Savings in 2015****</td>
<td>$1,250,000</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Source: Navigant analysis*