ComEd Appliance Rebates Program
PY9 Process Evaluation

Submitted to:
ComEd

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Why does the program exist?

The goal of the program is to increase the market share of ENERGY STAR and energy efficient products by offering rebates to minimize the price gap between these products and less efficient product offerings.

Customers received rebates for the following measures in PY9, shown by the percentage of the total number of rebates, from highest to lowest, and by the percentage of the total rebated dollars.

- **Advanced Thermostat**: 45% of the rebates were for advanced thermostats, comprising 62% of the total rebated dollars.
- **Clothes Washer**: 21% of the rebates were for clothes washers, comprising 15% of the total rebated dollars.
- **Refrigerator**: 17% of the rebates were for refrigerators, comprising 12% of the total rebated dollars.
- **Air Purifier**: 5% of the rebates were for air purifiers, comprising 4% of the total rebated dollars.
- **Advanced Power Strip**: 4% of the rebates were for advanced power strips, comprising 2% of the total rebated dollars.
- **Room AC**: 2% of the rebates were for room AC, comprising 1% of the total rebated dollars.
- **Bathroom Exhaust Fan**: 2% of the rebates were for bathroom exhaust fans, comprising 1% of the total rebated dollars.
- **Water Dispenser**: 1% of the rebates were for water dispensers, comprising 1% of the total rebated dollars.
- **Electric Clothes Dryer**: 1% of the rebates were for electric clothes dryers, comprising 1% of the total rebated dollars.
- **Freezer**: 1% of the rebates were for freezers, comprising <1% of the total rebated dollars.
- **Pool Pump**: 1% of the rebates were for pool pumps, comprising 2% of the total rebated dollars.
- **Heat Pump Water Heater**: 1% of the rebates were for heat pump water heaters, comprising <1% of the total rebated dollars.
What changes to the program might we see in the future?

The following items may shape the future of the Appliance Rebates Program (ARP):

• ComEd is open to new measures that are not defined in the IL TRM.

• Advanced thermostat savings research could impact the TRM-defined expected savings for the measure.

• Advanced power strip in-service rate research could impact the expected TRM-defined savings for the measure.

• The Internet of Things (IoT) and the connected home landscape may provide options for new measures to include in future program years.
PY9 rebate delivery channels

Customers can visit the ComEd website to apply to receive a rebate.\(^1\)

Measures offered through the Simple Energy-operated ComEd Online Marketplace are instantly rebated.\(^2\)

Measures offered at partner retailers are instantly rebated.

71% | 66%
---|---
23% | 27%
6%  | 7%

Percentage of the total number of rebates by channel | Percentage of total rebated dollars by channel

Sources: ComEd PY9 tracking data.
1. https://www.comed.com/WaysToSave/ForYourHome/Pages/ApplianceRebates.aspx
2. https://www.comedmarketplace.com/
ComEd and CLEAResult, ARP’s implementation contractor, use various strategies to reach their target audience of customers and retailers.

- Point-of-sale materials available at retailers
- Features in ComEd’s newsletter
- Bill inserts and emails
- Billboards, TV, and digital advertisements
- Social media (primarily Facebook and Twitter)
- Directives on ComEd’s website

**ComEd does not market to retailers directly**

**CLEAResult primarily markets the program to and through retailers**

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1. Source: https://www.comed.com/WaysToSave/ForYourHome/Pages/Default.aspx
Rebate volume appears to be highest during seasonal shopping peaks. The largest rebate volume peaks during PY9 coincided with Black Friday and Cyber Monday sales during late November in 2016 and 2017. This shows that promotional sales are effective in increasing participation for the measure mix of this program. There are also other periods of high rebate activity, such as in early June 2017 and early August 2017, which do not correlate with known marketing pushes. In the future, Navigant plans to examine free-ridership on a quarterly basis to capture periods of high and low rebate volume separately. Quarterly free-ridership results could provide information on how retailers impact program influence.

Source: ComEd PY9 Tracking Data
Where are the rebated customers?

Navigant used ComEd PY9 ARP tracking data and census data to create the following maps. These maps represent the number of measures rebated through the ‘Online Rebate Application’ and ComEd’s ‘Online Marketplace’ rebate channels. Customer zip code information was unavailable for most ‘Point of Sale’ rebate channel records in the tracking data. Records with missing zip code information from this channel represented 3% of the total number of rebates and total dollars rebated, as well as 11% of the total quantity of measures rebated.

The map below shows the number of measures rebated through ARP in each zip code of the ComEd service territory. Looking solely at the location of rebated measures illustrates that the majority of rebated measures are near the city, but this does not tell the whole story…

Source: ComEd PY9 Tracking Data
A closer look at the geographic spread of rebates

After normalizing for population density by zip code (shown by the map on the right-hand side), we see the reach of the program's Online Rebate Application and Online Marketplace channels is farther than the rebated measure count alone suggests. There are several zip codes outside of the metropolitan area that have 0.009 to 0.03 rebated measures per person showing that participation per person is not concentrated in the metropolitan area. There are also zip codes throughout the territory where population-normalized rebate counts are low compared to surrounding areas.

Source: ComEd PY9 Tracking Data

The ‘Fast Feedback’ survey was concerned with free-ridership and how participants learned about ARP.

The ‘Spillover’ survey was concerned with measuring program spillover, customer satisfaction, and customer demographics.

In the following sections, Navigant presents information on how customers learned about ARP from the ‘Fast Feedback’ survey and information on customer satisfaction and demographics from the ‘Spillover’ survey. Other information regarding free-ridership and spillover will be presented in a separate memo.
How did you find out about the program?

Asking about how customers discovered the Appliance Rebate Program revealed that sales associates at retailers, advertisements, and ComEd's mailings are valuable resources for increasing program awareness.

Source: ComEd PY9 Fast Feedback Survey. The count of responses to this question was 26,430. Of those respondents, 5,371 indicated they found out about the program from an other source and described the source via text. Therefore, the "Other:" categories in red are free response text survey responses; categories do not reflect all unique responses.
The Spillover Survey indicated that customers are very satisfied with the program. 89 percent of respondents rated the overall program an 8, 9, or 10 on a 0-10 scale, where zero is ‘not at all satisfied’ and 10 is ‘extremely satisfied’.

How would you rate your satisfaction with...

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating 0-3</th>
<th>Rating 4-7</th>
<th>Rating 8-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>The rebate application process</td>
<td>12%</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>The appliances eligible for rebate</td>
<td>13%</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>The Appliance Rebate Program overall</td>
<td>11%</td>
<td>89%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Navigant PY9 Spillover Survey
Participant demographics

Of the participants in the Appliance Rebates Program: nearly half have salaries over $100,000, they have an almost even age distribution from 25 and above, the majority live in single family homes, and they own their homes.

**Nearly Half Salaries Over $100,000**

- Less than $50,000: 7%
- $50,000 to less than $75,000: 16%
- $75,000 to less than $100,000: 20%
- More than $100,000: 48%
- Refused: 9%

**Nearly Even Age Distribution**

- 25 to 34 years: 21%
- 35 to 44 years: 25%
- 45 to 54 years: 17%
- 55 to 64 years: 19%
- 65 years and over: 17%

**Majority Single Family Homes**

- Single Family: 76%
- Apartment: 19%
- Town/Row House: 5%

**Majority Own Homes**

- Home Owners: 92%
- Renters: 8%

Source: Navigant PY9 Spillover Survey
The team compared the ComEd general population to the ARP participants to understand how the participation demographics compare to the general population demographics.

### Household Income

Nearly 50% of the households that participated in the Appliance Rebates Program had incomes more than $100,000. In comparison, only 24% of the general ComEd population have a household income greater than $100,000.

<table>
<thead>
<tr>
<th>Income Range</th>
<th>ARP Participants</th>
<th>ComEd General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>7%</td>
<td>43%</td>
</tr>
<tr>
<td>$50,000 to less than $75,000</td>
<td>16%</td>
<td>20%</td>
</tr>
<tr>
<td>$75,000 to less than $100,000</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>More than $100,000</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Refused</td>
<td>9%</td>
<td>24%</td>
</tr>
</tbody>
</table>

### Age Distribution

Both the ComEd general population and the ARP participants have a fairly even age distribution. However, 35% of the general ComEd population is under 25 years old.

<table>
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<th>Age Range</th>
<th>ARP Participants</th>
<th>ComEd General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 25 years</td>
<td>35%</td>
<td>21%</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>35 to 44 years</td>
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<td>14%</td>
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<td>17%</td>
</tr>
</tbody>
</table>

Comparison Demographics

The team compared the ComEd general population to the ARP participants to understand how the participation demographics compare to the general population demographics.

Home Type
The housing units in the ComEd General Population are primarily 1 unit detached homes (52% of home types are 1 unit detached homes), while 75% of the ARP participants had single family homes.

Home Ownership
The majority (92%) of ARP participants are home owners while only 68% of the ComEd general population are home owners.

Looking to CY2018
Findings & Recommendations

Findings
1. Navigant learned from the PY9 Program Manager and Implementation Contractor interview that the primary reason customers call the CLEAResult-operated rebate application hotline is for issues related to incomplete or missing information necessary to complete the rebate application. For customers that do not call the hotline, we may not have a clear picture of why a customer wasn’t able to complete a rebate application.

2. 89 percent of ‘Spillover’ survey respondents were satisfied with the program, rating the program an 8, 9, or 10 on a 0-10 scale, where zero is ‘not at all satisfied’ and 10 is ‘extremely satisfied’.

3. The reach of the ARP’s Online Rebate Application and Online Marketplace channels appear to extend throughout the ComEd service territory. However, there are also zip codes with potential for further participation through these channels.

Recommendations
1. Track which question number customers reach before exiting the online rebate application to identify potential trends in where customers may be having trouble with the rebate application. This information could be used to improve the design of the application and overall satisfaction with the application process.

2. Consider increasing marketing efforts in zip codes with potential for further participation.
Navigant hopes to learn the answers to these questions from program manager, implementing contractor, and retailer interviews in CY2018.

The evaluation team would like to know:

1. What are ComEd and CLEAResult interested in learning from the process evaluation in CY2018?
2. Are there any upcoming program changes in CY2018?
3. Does ComEd foresee any market transformations that may affect the ARP program?
4. Can quarterly free-ridership analysis provide detail on how retailers impact program awareness?
5. Does ComEd foresee integration of an income eligible channel into the ARP program?
6. Are marketing strategies different outside of major metropolitan areas?
# CY2018 Appliance Rebate Program Timeline

<table>
<thead>
<tr>
<th>June 2018</th>
<th>August 2018</th>
<th>September 2018</th>
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<tbody>
<tr>
<td><strong>Participant Free Ridership</strong>&lt;br&gt;Online Survey – What is the free-ridership by measure and how should that impact recommended net-to-gross ratios?</td>
<td><strong>Conduct PM/IC Interviews</strong>&lt;br&gt;– What do ComEd and CLEAResult see as victories and pain points in CY2018?&lt;br&gt;<strong>Conduct Retailer Interviews</strong>&lt;br&gt;– How are retailers raising program awareness and what can be improved?</td>
<td><strong>Report Findings</strong></td>
</tr>
</tbody>
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