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CC: Randy Gunn, Jeff Erickson (Navigant); Jennifer Morris (ICC Staff)
From: Carly Olig, Trace O'Rorke, Nicole DelSasso (Navigant)
Date: 6/28/2018
Re: ComEd PY9 Bidgely End of Pilot Online Survey Results

1. INTRODUCTION AND METHODOLOGY

This memo outlines results from an end of pilot survey conducted for ComEd's Bidgely pilot. The research objectives of the survey were to measure satisfaction with ComEd, the pilot, and the Bidgely solution; gauge customer belief in the accuracy of their disaggregated data; assess customer interactions with and perceptions of the program; and determine what actions participants took in response to the information they received. The median length of time that respondents took to complete the survey was 7.4 minutes. Question formats included: score from zero to ten, discrete choice, open-ended, and one unique ranking question.

The survey was fielded online through Navigant's Qualtrics platform with an email invitation between May 10th and May 17th, 2018[1]; this was one to two weeks after the pilot concluded at the end of April 2018. Certain questions were only asked if the customer could see their usage in real time; these instances are noted in figure captions.

Table 1 shows the number of responses and the response rate by survey completion status. The survey analysis includes completed and partially completed surveys.[2] In total, 110 customers responded to part or all of the survey[3] leading to a response rate of 9.2%.

Table 1. Response Summary

Completion Status	Response count	Emails Delivered	Response Rate
Complete	93	-	-
Partially Complete	17	-	-
Did Not Start	9	-	-
Total	119	-	-
Total Valid*	**110**	**1,202†**	**9.2%**

* Valid response count includes only "Complete" and "Partially Complete" categories.
† In total, 1,224 emails were delivered but 22 were deemed invalid based on bounce backs.
Source: Navigant analysis

2. KEY FINDINGS AND RECOMMENDATIONS

The following summarizes Navigant's key findings and recommendations from this survey.

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[1] All customers who ever joined the program (regardless of when or how engaged they were) were sent a survey invite.
[2] That is, customers who answered all of the survey questions and those who left the survey partway through without finishing all of the questions. We also had a small number of customers (9) who followed the survey link in the email but did not actually start the survey by answering any questions.
[3] Note that since a number of partially complete survey responses were used, the response count (N) may vary slightly from question to question. The Ns are indicated for each figure.

Finding 1. Fifty-three percent of respondents rated their likelihood to participate in a similar program in the future a 10 out of 10. Additionally, 64% of respondents rated their likelihood to recommend this type of program to friends or family an 8 or higher out of 10.

Recommendation 1. This suggests that there is an appetite for similar programs in the future and that customers like receiving daily or real-time usage information and usage disaggregation.

Finding 2. The majority (64%) of respondents who indicated that the Bidgely program improved their satisfaction with ComEd cited an improved understanding of their usage as the primary reason.

Finding 3. The Bidgely HomeBeat web and mobile app are effective at encouraging awareness of and reduction in energy use. Fifty-six percent of respondents indicated that their participation caused them to take action to save energy. When asked to rate the program's effect on their awareness of their energy use, 65% rated this at 8 or higher out of 10.

Finding 4. Sixty-one percent of respondents reported scores of 8 or greater on the 0 to 10 scale for their satisfaction with the ability to see their hourly data. For daily and monthly data, this share was larger at 66%. Conversely, the areas of lowest satisfaction were with the mobile application and the website, with only 39% and 43% reporting scores of 8 or greater, respectively.

Recommendation 2. Based on respondent feedback, in the future, ComEd should focus on reliability and ease-of-use of the platform.

Finding 5. Respondents generally rated the accuracy of usage information positively. Across the categories of usage information asked about, nearly one-third of customers ranked the accuracy of each type of usage information a 10 out of 10 and another approximately 15% of each rated a 9 out of 10.

Finding 6. Almost half of all respondents (49%) reported a desire to save energy as the number one reason for participation in the program. The second most popular reason was the opportunity to see a breakdown of usage across their appliances.

Finding 7. Some respondents (approximately 8%) indicated they felt that the app was a waste of time, either for reasons of inaccurate information or irrelevancy.

Recommendation 3. Based on respondent feedback, in the future, ComEd should focus on helping customers understand and interpret the usage data they are seeing.

Recommendation 4. For similar programs in the future, marketing should be targeted towards segments that are interested in technologies and granular data as other customers may not find the program relevant or useful.

3. RESULTS

3.1 Satisfaction

Overall satisfaction with ComEd in general, ComEd's energy efficiency program offerings in general, and ComEd's Bidgely HomeBeat program were very positive. As shown in Figure 1, average satisfaction scores fell between 7 and 8 in each category. Satisfaction with the Bidgely HomeBeat program had the largest share of scores under 5 out of 10 (17.3%); this was higher than the share for the other two categories, which had less than four percent of scores under 5 each.

Figure 1. Satisfaction with ComEd and Program Overall*
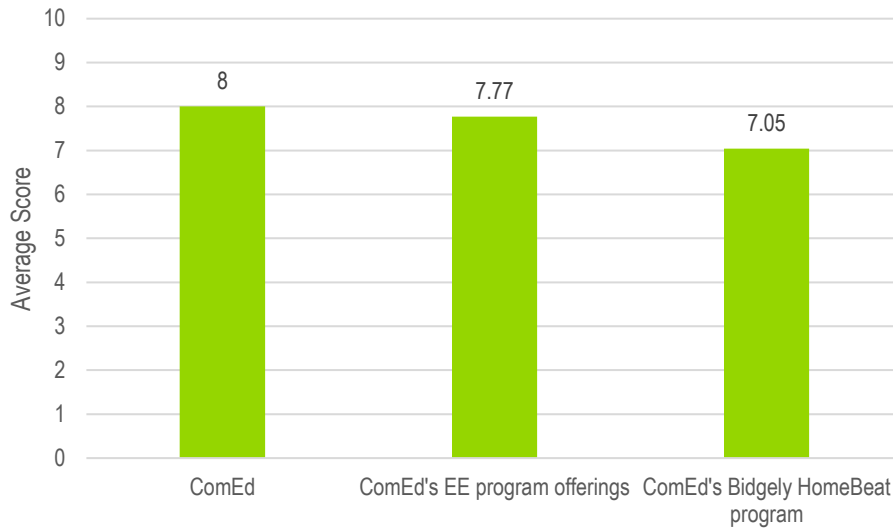
* N = 110 for all three questions
Source: Navigant analysis

Respondents were also asked about their likelihood to participate in a similar program at a later date. As shown in Figure 2, on a scale of 0 to 10, 53% of respondents indicated that they would be highly likely to participate by giving a perfect 10 rating. Notably, responses to the other satisfaction questions detailed in this section vary amongst those who rated this a 10, suggesting that people do have an interest in improved program offerings or accessibility even if they disliked certain aspects of this pilot.

**Figure 2. Likelihood to Participate in a Similar ComEd Program in the Future**
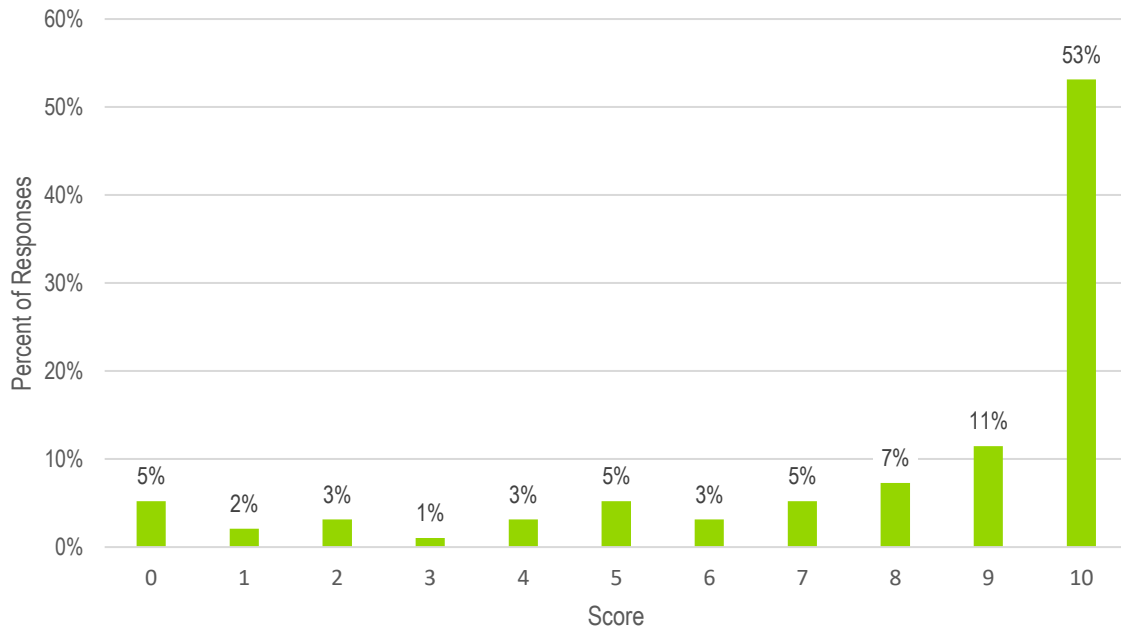
* N = 96
Source: Navigant analysis

Additionally, respondents were asked to rate their likelihood of recommending the Bidgely HomeBeat program to friends and family with 64% rating their likelihood 8 or better out of 10, with an overall average score of 7.25 out of 10.

Survey respondents also rated how their satisfaction with ComEd changed as a direct result of their experience in the Bidgely HomeBeat program on a scale of 0 to 10. A score under 5 indicated a decrease in satisfaction with ComEd, a score of 5 indicated no change, and a score over 5 indicated an increase in satisfaction with ComEd. The percentage distribution of these ratings is displayed in Figure 3. Respondents overwhelmingly reported that they are more satisfied with ComEd due to their experience in the Bidgely HomeBeat program (63%). A minority (9%) reported becoming less satisfied as a result of the program, while 28% reported no change.

**Figure 3. Change in Satisfaction with ComEd from Bidgely HomeBeat**
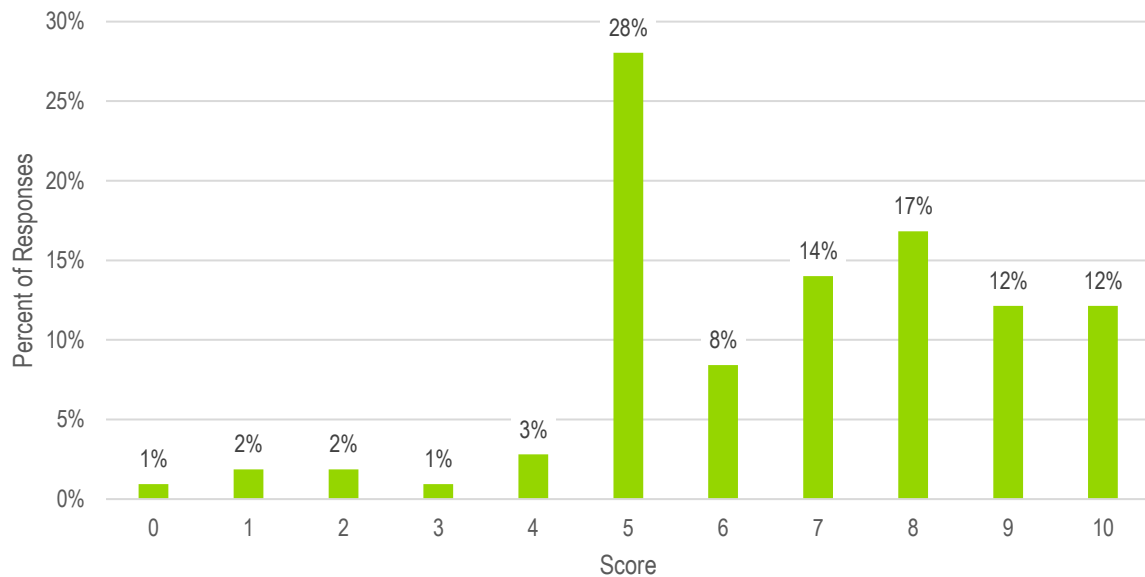
* N = 107
Source: Navigant analysis

Customers who reported a change for better or for worse in their satisfaction with ComEd were asked to elaborate. The most common reason given for an increase in customer satisfaction was the ability to view the breakdown of usage, leading to a greater understanding of usage overall as compared to prior to the program. Additionally, some customers detailed having had a good experience with representatives, as well as the program helping with cost savings. These responses demonstrate that there is both value in and customer engagement with the information that the Bidgely HomeBeat program provides.

Conversely, those who reported a decrease in their satisfaction as a direct result of the program voiced a discontent with the whole or a part of the program itself. It is difficult to draw meaningful conclusions from the small pool who reported a decrease, so overall satisfaction with the program is best gauged by satisfaction with its individual aspects.

Figure 4 details specific categories of the Bidgely HomeBeat solution on which customers were asked to report their level of satisfaction and shows the ratings breakdown of scores from 0 (very dissatisfied) to 10 (very satisfied) for each. Customers reported the highest satisfaction with the ability to see daily and monthly usage data (66% rated this feature at least an 8) and the ability to see real-time usage data (61% above 8). Satisfaction was lowest with the website and mobile app themselves (43% and 39% above 8, respectively).

## Figure 4. Satisfaction with Program Components
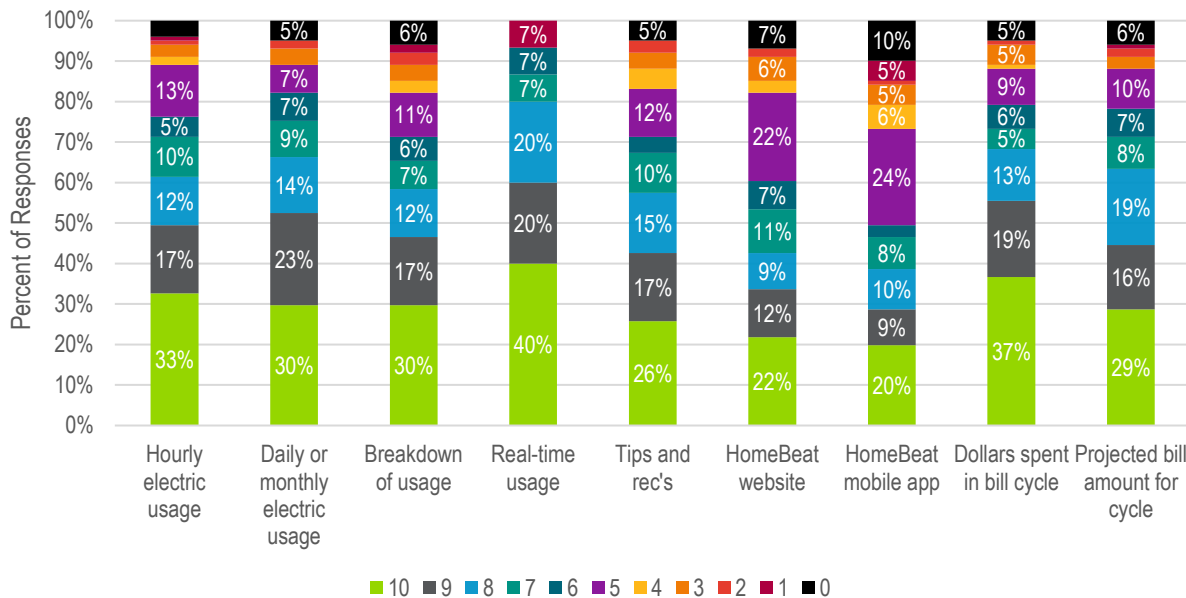
* N = 107 for all questions, with one exception. Satisfaction with ability to see real-time usage was only asked to the subset of customers who had access to their real-time data (N = 15).
Source: Navigant analysis

For further elaboration on possible causes of dissatisfaction, anybody who reported a score of 4 or below for a particular feature was prompted to clarify the reason behind their displeasure. Respondents mostly claimed a general lack of usefulness for the platforms, with most claiming inaccuracy of information (particularly usage information), a lack of actionable or helpful information (this also came through in the comments on the tips and recommendations), or issues with application access or functionality (in particular, the mobile app was cited as unreliable with poor execution). Improving the ease-of-use and functionality of future similar platforms should expand the reach of the program to those who currently find it inaccessible.

There was also a minority of dissatisfied respondents that claimed that the program features were useless, or that the program itself was too difficult to continue using. Since certain demographics of customers may find hourly or daily usage data and bill projections to be personally irrelevant or inherently untrustworthy, Navigant suggests any additional app roll out to be marketed more towards those segments both interested in using technologies like this as well as looking at more granular usage data. To this point, respondents who had the ability to see their real-time usage data generally reported higher-than-average satisfaction, suggesting that these might be the type of data- or tech-oriented customers that the program is most suited for. Notably, these customers reported the tips and recommendations to be less relevant to them on average.

Respondents were also asked about their perception of the accuracy of usage data provided to them on a scale from 0 (completely inaccurate) to 10 (very accurate). As demonstrated in Figure 5, the majority of customers gave preferable ratings on the accuracy of each category of usage data, and the distribution of scores was generally similar across the categories. Nearly one-third of customers ranked the accuracy of each type of usage information a 10 out of 10 and another approximately 15% rated it a 9.

Figure 5. Accuracy Ratings of Usage Information Received
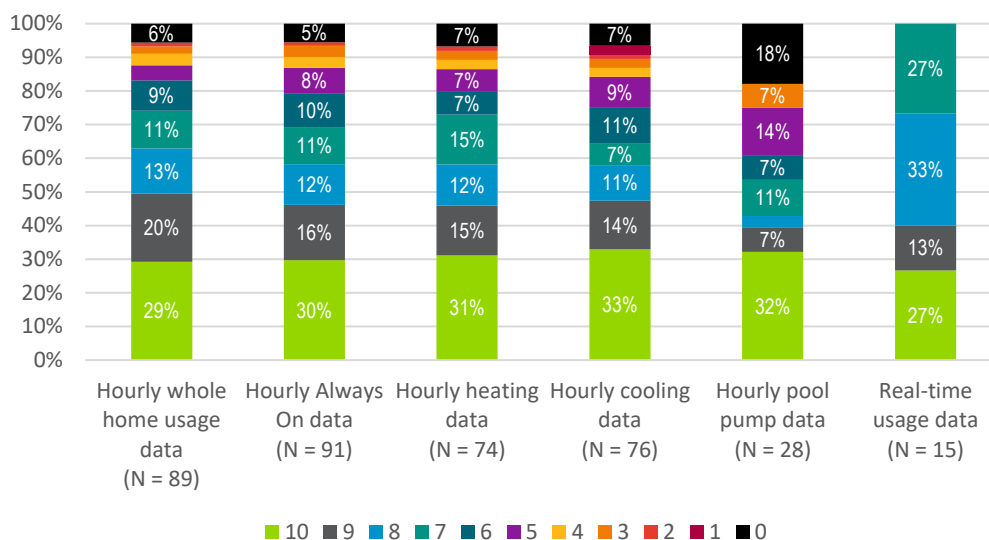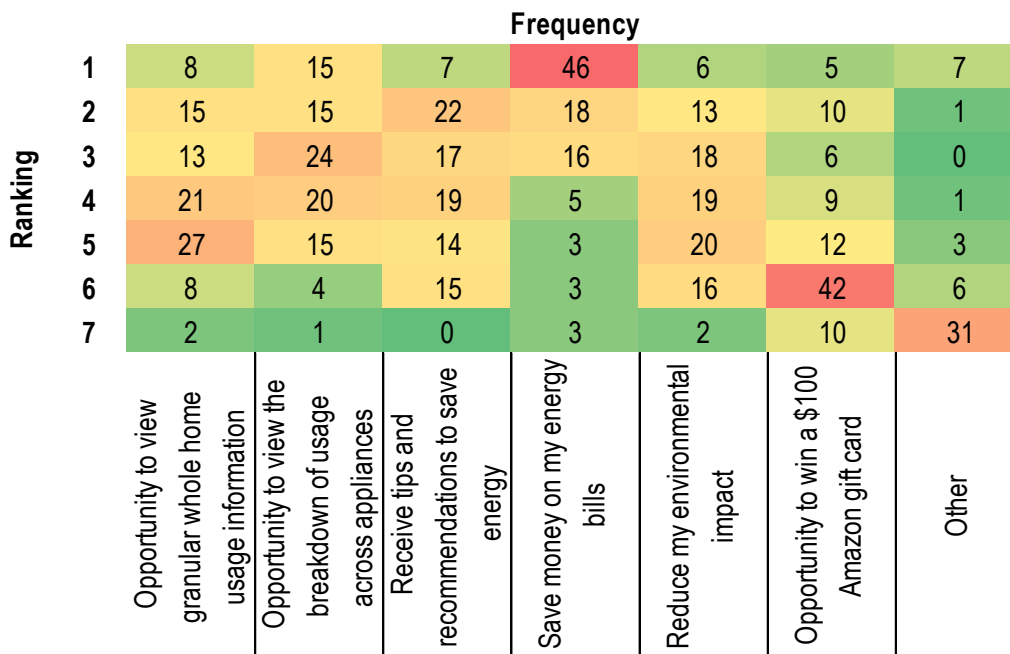

Source: Navigant analysis

Respondents who gave an accuracy rating below 5 were prompted to explain their perception of the information and suggest ways to improve their confidence in its accuracy. Customers stated that the information was either difficult to comprehend or that they were experiencing discrepancies in usage between their ComEd bills and their Bidgely reports. Suggestions for improvement were very customer specific, from requesting better explanatory power of the Bidgely tool to help understand what they are seeing. Providing tutorials to help customers understand patterns in daily and real-time usage could help customers interpret the data they are seeing. Additionally, explanations of how this data differs from billing data could be useful.

3.2 Interactions and Perceptions

Navigant designed some survey questions to explore how customers found out about the Bidgely tool as well as how they used it. The majority learned of the program either via email (47%) or direct mail (27%), with very few finding out from word-of-mouth or other means. A decent portion (20%) could not recall how they learned of the program.

When asked to rank their reasons for participating in the program out of a set list of options, just under half (49%) chose reducing their energy bill spending as their number one reason. The opportunity to see the breakdown of usage across appliances and the ability to receive tips and recommendations to save energy were the second and third most popular reasons for participating respectively. Figure 6 shows a heatmap of respondent rankings, where green colored squares are the less popular and red squares are the more popular ranking choices. The boxes in the heatmap indicate how many customers selected each reason for participating as each rank; for example, in the first box in the upper left-hand corner 8 respondents ranked "Opportunity to view granular whole home usage information" as their number 1 reason for participating. Notably, few respondents who selected "Other" in their rankings gave a specific reason, but those who did voiced that their participation was due to an interest in new technology like smart meters and usage monitoring applications.

Figure 6. Reasons for Program Participation, Heatmap of Rankings

Frequency

Ranking	Opportunity to view granular whole home usage information	Opportunity to view the breakdown of usage across appliances	Receive tips and recommendations to save energy	Save money on my energy bills	Reduce my environmental impact	Opportunity to win a $100 Amazon gift card	Other
1	8	15	7	46	6	5	7
2	15	15	22	18	13	10	1
3	13	24	17	16	18	6	0
4	21	20	19	5	19	9	1
5	27	15	14	3	20	12	3
6	8	4	15	3	16	42	6
7	2	1	0	3	2	10	31

* N = 94. "Other" has fewer than 94 responses since it was an optional selection.
Source: Navigant analysis

Supporting the heatmap, Table 2 shows the average ranking for each option. A lower ranking indicates a more important reason (reasons for participating were ranked by importance from 1 to 7). To reiterate: saving money, viewing disaggregated usage, and receiving energy saving tips and recommendations were the top three reasons for participating, by average ranking.

Table 2. Reasons for Program Participation, Average Ranking

| Average Ranking	Description text
2.17	Save money on my energy bills
3.22	Opportunity to view the breakdown of usage across appliances
3.6	Receive tips and recommendations to save energy
3.81	Opportunity to view granular whole home usage information
3.96	Reduce my environmental impact
4.9	Opportunity to win a $100 Amazon gift card
5.73	Other (please specify)

Source: Navigant analysis

Figure 7 shows the distribution of respondents' reported frequency of visits to the Bidgely HomeBeat website and mobile app. Overall, respondents who downloaded the app (35% of respondents[4]) visited it more frequently than those using the website. In total, 72% of respondents who downloaded the app

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[4] This aligns well with what we saw in the actual login data where 35% of participants were shown as using the mobile app. For more details see the PY9 Bidgely impact report: Navigant. 2018. *ComEd Bidgely Pilot Evaluation Report.* Presented to Commonwealth Edison Company. *Finalization forthcoming.*

visited it at least once per month, compared to 45% of customers who visited the website at least once per month. Notably, almost one-quarter (23%) said they never visited the website.[5]

Figure 7. Frequency of Website or Mobile App Visits
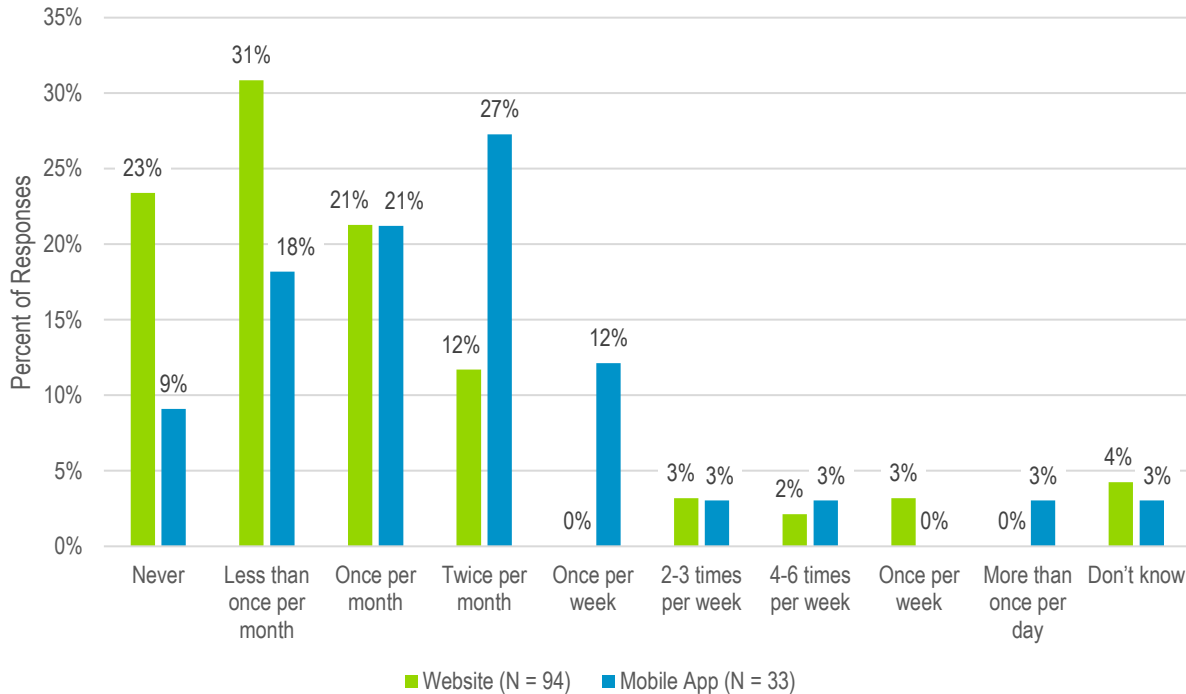
Source: Navigant analysis

Respondents who visited the website or app at least once per month were asked why they continued to visit. Typically, they said they wanted to view their overall and disaggregated usage because they were interested in either usage monitoring or cost savings.
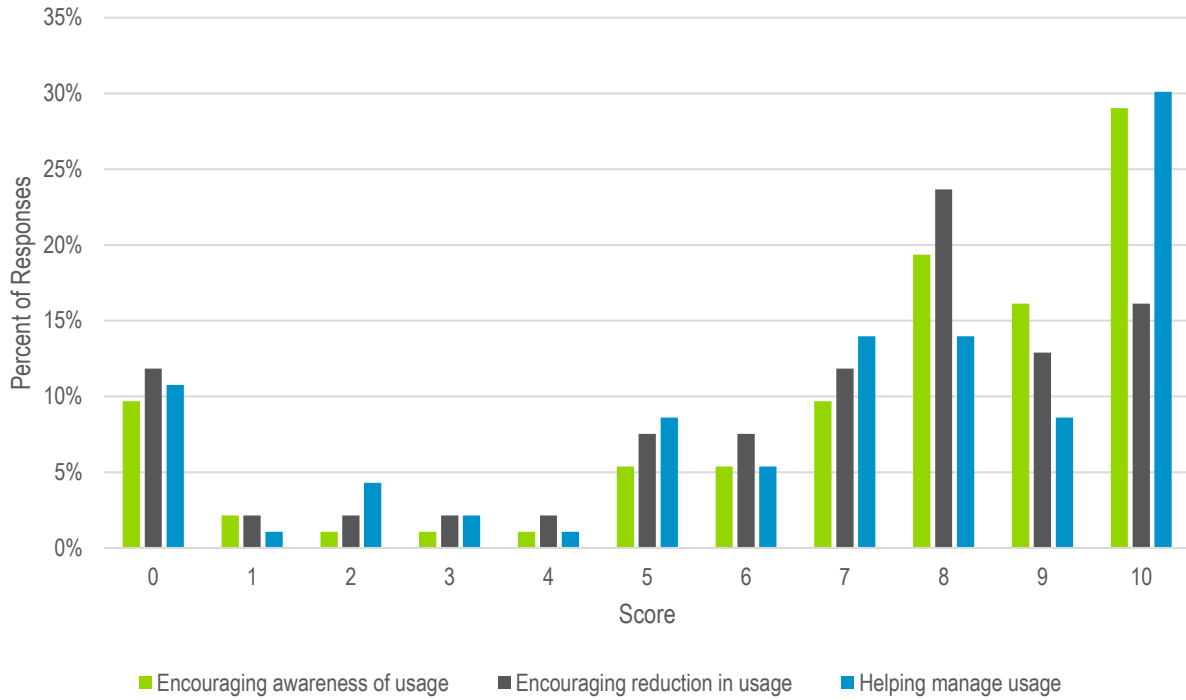
3.3 Actions and Energy Awareness

In order to gauge the reach of the Bidgely HomeBeat program, Navigant asked respondents a few questions to determine actions that customers took based on the information provided. Fifty-six percent of respondents reported that the program caused them to take new actions to save on energy in their homes. Actions taken in response to the information provided were: (a) installing LED bulbs, (b) unplugging or turning off specific devices, (c) better managing current devices and appliances, and (d) developing new habits and a general mindfulness regarding how much energy they are using and when they are using it.

Using the 0 to 10 scale, respondents were asked how well the program encouraged their household members to become more aware of their energy use. Scores were quite high with 80% of the respondents giving a score of 6 or greater and 65% scoring 8 or greater. As a follow up, respondents were also asked if they thought that the program caused them to use less energy than they would have used otherwise. For this question, 72% of the respondents gave scores of 6 or greater and 53% gave 8 or greater. Finally, customers were asked how well the program helped them in better managing their

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[5] This aligns well with what we saw in the actual login data where the mean visits per customer (to website or app) was 14, but the median was 3 and one-third of participants only visited the website or app once. For more details see the PY9 Bidgely impact report: Navigant. 2018. *ComEd Bidgely Pilot Evaluation Report*. Presented to Commonwealth Edison Company. *Finalization forthcoming.*

usage. The average score for helpfulness in usage management came in at 6.8 out of 10. Figure 8 shows response distributions for all three questions.

Figure 8. Energy Usage Awareness, Reduction, and Management

* N = 93
Source: Navigant analysis