NAVIGANT

SmartGrid Demonstration Project

2014 Process Evaluation Report

Prepared for:
Kansas City Power & Light

KCP&L

SmartGrid
the future of energy

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Table of Contents

Executive Summary

Navigant Consulting, Inc. (Navigant) was selected by Kansas City Power & Light (KCP&L), through a competitive bidding process, to conduct a process evaluation of the customer offerings through their SmartGrid Demonstration Project (SGDP).

Background

KCP&L's SGDP is an end-to-end SmartGrid platform that includes advanced renewable generation, storage resources, leading-edge substation and distribution automation and control, energy management interfaces, and innovative customer programs and rate structures. The SGDP is focused on the geographic area served by the KCP&L Midtown Substation and lies within Kansas City's urban core. The KCP&L project is unique in that the area served by the SGDP is within an economic development region with a large number of customers living below the poverty level and/or in arrears on their utility bills.

The customer offerings are the subject of this process evaluation and include the following:

- » *MySmart Portal:* An energy management web portal that displays energy usage and utility bill cost information in hourly, daily, and monthly configurations.
- » *MySmart Display:* An in-home monitor that displays current energy usage and utility bill cost information.
- » *MySmart Thermostat:* An advanced metering infrastructure (AMI)-enabled programmable thermostat.
- » *Home Area Network (HAN):* A home energy network consisting of AMI-enabled programmable thermostat and load control devices.
- » *Time-of-Use (TOU) Rates:* A rate structure that supports summer peak load shedding through higher costs on weekdays from 3:00 to 7:00 p.m. from May 16 to September 15.

Evaluation Overview

Over the course of a number of years (2012-2014), Navigant conducted a process evaluation of each of the SGDP's components, including the MySmart Portal, the MySmart Display, MySmart Thermostat, Home Area Network, and Time-of-Use Rates. The evaluation team used online and phone surveys to explore participant experience and satisfaction with each component, conducted an analysis of the MySmart Portal's web analytics to understand participant usage patterns, and interviewed project stakeholders to identify lessons learned about the program operations and technologies deployed throughout the program.

Key Findings

Overall

» Participant awareness of the overall SGDP varied by program component. For example, MySmart Portal participants did not seem to connect the portal with the SGDP, while MySmart Thermostat and TOU participants reported high levels of awareness of the SGDP.

» Participant motivations for signing up for their respective program components were consistently driven by a desire to understand and control their energy use, in many cases to save money. Less motivating was a desire to help the environment or assist KCP&L in managing its business risks, such as power outages or having to build new generation.

» Participants reported high levels of satisfaction with the SGDP program components, as well as high levels of satisfaction with KPC&L. When asked, most participants felt that the program improved or maintained their level of satisfaction with KCP&L as a utility.

MySmart Portal

» Overall, MySmart Portal participants did not seem to associate the online portal with the SGDP program as a whole.

» The primary reason that survey respondents used the web portal was to understand and control their energy use, as opposed to finding ways to save money.

» Only a few respondents had negative comments about the MySmart Portal, and most reported high levels of satisfaction both with the portal and with KCP&L as a company overall.

» KCP&L struggled to maintain customer engagement with the MySmart Portal over time, with 36 percent of respondents reporting that the frequency at which they visited the site had decreased since they first joined.

» MySmart Portal users tend to be under 30 years of age with a college degree. These users rent small, single-family homes or apartments and live alone or with one other person.

MySmart Display

» MySmart Display survey respondents felt that the display was an effective tool for participants to use to gain control of their energy use and save money on their utility bill.

» The primary reasons that survey respondents stopped using their display was because the device broke, never worked in the first place, or was too complicated to use.

» Very few participants had concerns about the MySmart Display program when they first enrolled. Most were motivated to participate to have better control over their electric usage (65 percent) and save money on their utility bill (24 percent).

» The MySmart Display program has been effective at encouraging positive energy use behaviors.

» Participants believe the display is accurate, easy to use, and has the right mix of features.

» The vast majority (92 percent) of participants were satisfied with their display, leading to an increase in satisfaction with KCP&L for some.

» MySmart Display participants tend to be older and have higher levels of education than the average resident in the SGDP territory: The demographic makeup of the participants suggests that a program such as the MySmart Display program is likely to have applicability across the broader service territory.

MySmart Thermostat and Home Area Network

» Tstat/ HAN participants were very familiar with the SGDP, though not as familiar as TOU participants. This is in contrast to MySmart Portal participants.

» As with TOU participants, Tstat/HAN participants learned about the opportunity to participate in the program primarily by information received through the mail.

» The main reason participants signed up for the Tstat/HAN component was to save money on their energy bills.

» Overall, participants expressed satisfaction with the MySmart Thermostat and felt that the device was easy to use and saved them money on their monthly bill, though this sentiment was not unanimous.

» Half of the survey respondents reported that their satisfaction with KCP&L increased since they first signed up for Tstat/HAN program.

» Only 10 of the 32 survey respondents who participated in a demand response event (according to the program tracking database) could recall the event taking place.

» For the seven respondents who at one point opted out of participating in an event (according to the program tracking database), most reported not knowing why or how they opted out.

Time-of-Use Rates

» TOU survey respondents were very familiar with the overall SGDP.

» The main way that respondents learned about the opportunity to participate in the TOU billing structure was by receiving information through the mail.

» Overall, respondents expressed satisfaction with the program and felt that the TOU plan was easy to understand and that KCP&L provided them with sufficient information about the program.

» The majority of respondents (68 percent) strongly agreed that their energy bill decreased after participating in the program.

» When asked if their household regularly altered electricity usage in response to higher peak rates, 49 percent of respondents strongly agreed that they regularly altered electricity during peak periods.

1   Introduction

1.1   Background

Navigant Consulting, Inc. (Navigant) was selected by Kansas City Power & Light (KCP&L), through a competitive bidding process, to conduct a process evaluation of the customer offerings within the SmartGrid Demonstration Project (SGDP) territory.

1.1.1   Program Description

KCP&L's SGDP includes advanced renewable generation, storage resources, leading-edge substation and distribution automation and control, energy management interfaces, and innovative customer programs and rate structures. The SGDP is focused on the geographic area served by the KCP&L Midtown Substation, impacting about 15,000 commercial and residential customers across ten circuits and five square miles (Blue Zone or BIZ). The area generally reaches from Main Street to Swope Parkway and 36th to 52nd Street in Kansas City's urban core. The Green Impact Zone (Green Zone or GIZ) lies within the Blue Zone, covering a smaller 150-block area reaching from Troost to Prospect and 39th Street to 51st Street. To support these programs and services, advanced metering infrastructure (AMI) utility meters were installed for all customers within the SGDP territory between October 18, 2010, and March 18, 2011.

The SGDP is unique in that the area served by the project is within an economic development region. The area largely consists of low-income households with lower levels of education, lower home ownership, and higher than average levels of unemployment. In addition, a large number of these customers are living below the poverty level and/or are in arrears on their utility bills. Therefore, the benefits of choice, control, and convenience that the smart grid technologies provided are not likely to resonate with the typical household.

The project introduces new technologies in the substation and the distribution network, as well as advanced renewable resources such as large-scale energy storage to supply electricity and offset peak electrical demand. Finally, end users are provided transparent actual and predictive usage information, digital tools, and innovative programs to allow them to optimize energy consumption.

As part of the end-user experience, KCP&L has identified and/or developed a suite of programs and services to offer to customers within the demonstration area. These include the following:

- » *MySmart Portal:* An energy management web portal that displays energy usage and utility bill cost information in hourly, daily, and monthly configurations

- » *MySmart Display:* An in-home monitor that displays current energy usage and utility bill cost information

- » *MySmart Thermostat:* An AMI-enabled programmable thermostat

» **Home Area Network (HAN):** A home energy network consisting of AMI-enabled programmable thermostat and load control devices

» **Time-of-Use (TOU) Rates:** A rate structure that supports summer peak load shedding through higher costs on weekdays from 3:00 to 7:00 p.m. from May 16 to September 15.

These project components are described in the subsections below.

1.1.1.1   MySmart Portal

Participants use a customer-supplied home computer and Internet connection to log in to a web portal that provides them with energy information and engages them in energy usage decisions. KCP&L released two versions of the MySmart Portal over the course of several years, the first version being active from October 2010 through October 2012 and the second version of the site being active from November 2012 forward. Figure 1 illustrates one of the web portal screens, which can display customer energy consumption, estimate the amount the customer has spent on electricity to date in the month, and also tell the customer whether they are on track to meet or exceed a monthly customer goal.

Figure 1. MySmart Portal Dashboard

Source: KCP&L

1.1.1.2 MySmart Display

The in-home display (IHD), or MySmart Display (see Figure 2), receives direct information from the smart meter and presents data to the customer to aid them in monitoring real-time energy usage. Through the MySmart Display, the customer can get some of the information offered by the web portal, such as estimated energy bill for month-to-date, without having to log into the portal.

Figure 2. MySmart Display

Source: KCP&L

Figure 3 below shows the MySmart Display's in-home topology. The IHD connects directly and wirelessly to the smart meter, which uses its back-haul network to connect to the utility back office and in-turn to the Tendril Connect Platform for energy monitoring and message to the participant.

Figure 3. MySmart Display Topology
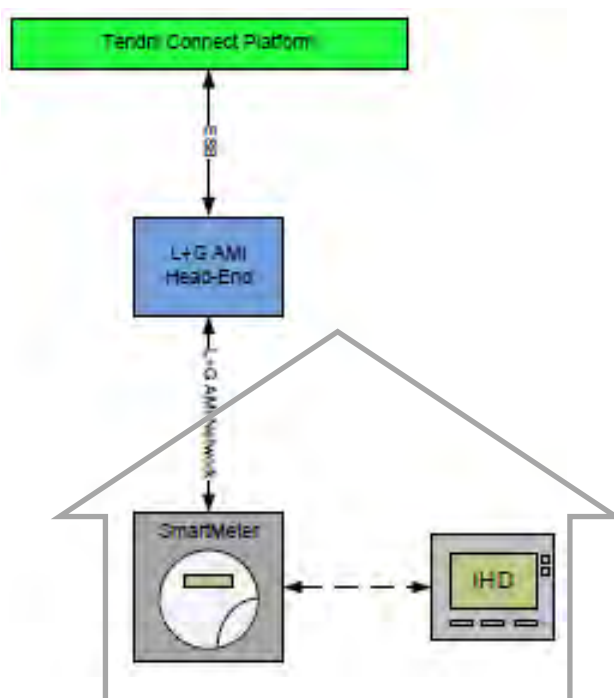
Source: KCP&L

1.1.1.3 MySmart Thermostat

The MySmart Thermostat (see Figure 4) allows customers to pre-set temperatures for nighttime or when they are away from home, and to set it to automatically return to their preferred temperature before they wake up or return home. The MySmart Thermostat can also be integrated with the HAN.

Figure 4. MySmart Thermostat

Source: KCP&L

Figure 5 below shows the in-home topology for thermostat connectivity. The thermostat connects directly, wirelessly, to the smart meter, which uses it's back-haul network to connect to the utility back office and in-turn to the Tendril Connect Platform for energy monitoring, demand response messages, messages to the participant.

Figure 5. MySmart Thermostat Topology
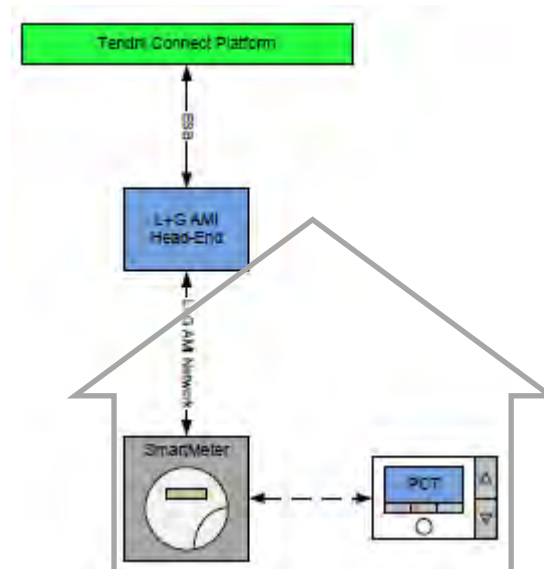
Source: KCP&L

1.1.1.4 Home Area Network

MySmart Home is a collection of in-home energy devices networked together using a HAN. These devices are in turn connected to the Tendril Connect Platform and back-office services via home gateway and customer-supplied broadband Internet connection. Figure 6 provides an illustration of a full MySmart Home customer deployment, including the following:

» MySmart plugs and switches to monitor and control power flow to various in-home devices

» MySmart Thermostat to control central heating, ventilating, and air conditioning (HVAC)

» MySmart Hub to provide HAN to Internet connectivity

» Home computer to access MySmart Portal

Figure 6. Home Area Network Components
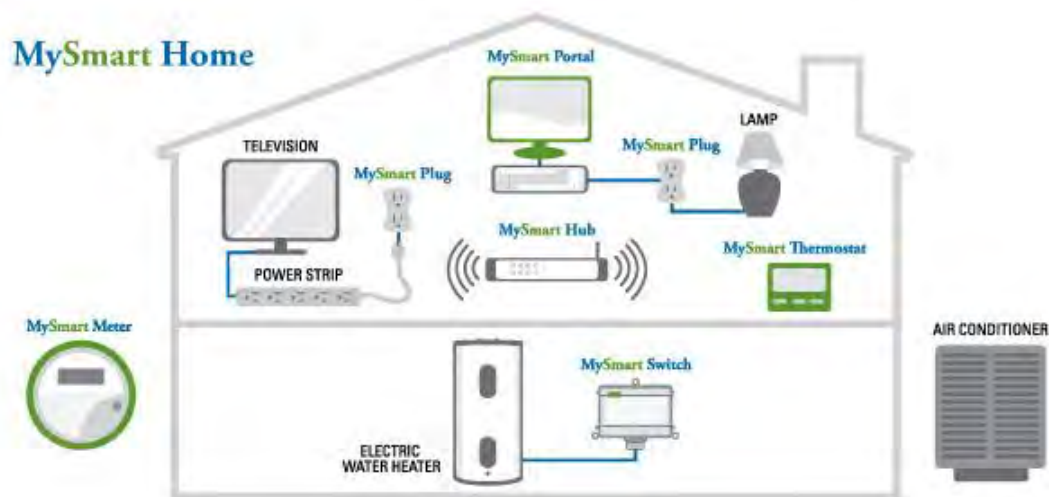
Source: KCP&L

MySmart Home participants do not have to use all devices shown in Figure 6 but will have at least MySmart Thermostat and access to MySmart Portal. This HAN configuration networks together the various devices described above as well as HAN-enabled plugs and switches that can control power to various customer devices. However, one difference is that these devices primarily use the customer-supplied broadband connection to interface with the Tendril Connect Platform and back-office applications, rather than using the Smart Meter back-haul network.

The connectivity among devices in MySmart Home is illustrated in Figure 7. Devices connect via HAN to both the HAN Gateway—for connection to the Internet and the Tendril Connect Platform—and to the home's smart meter to obtain some of the metering information and get other signals via the smart meter back-haul network.

Figure 7. MySmart Home Topology
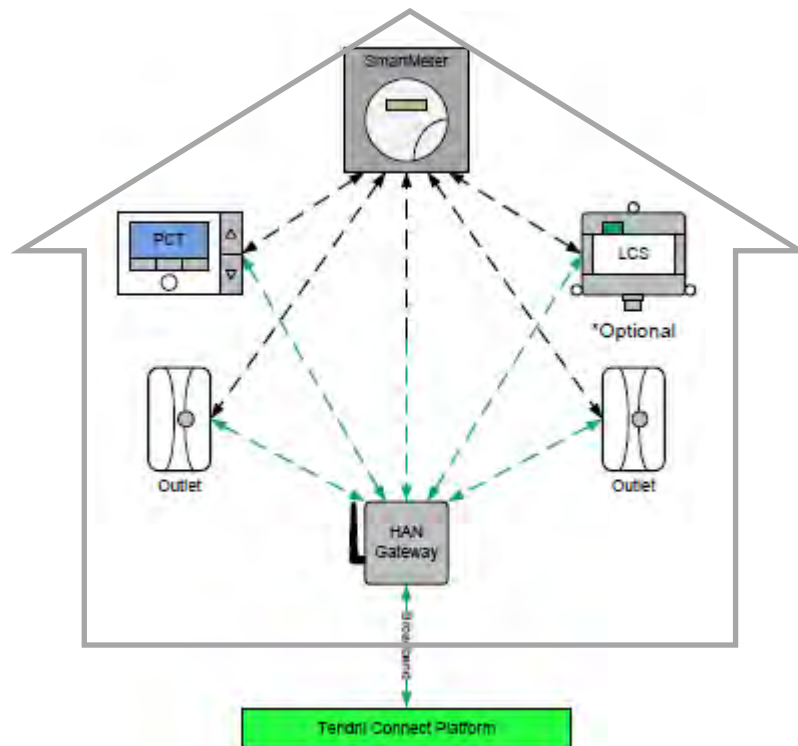
Source: KCP&L

1.1.1.5   Time-of-Use Rates

KCP&L developed TOU residential billing rates as an option for residents in the SGDP territory.   These rates can be used by participants in any of the technology options mentioned earlier. The program designates "off-peak" hours (when rates are discounted from standard) and "peak" hours (when rates are above standard). The TOU rates were designed to encourage customers to think about when they use electricity rather than just how much electricity they use, ultimately shifting electricity usage (grid load) from peak to off-peak periods. Figure 8 shows the TOU rate schedule.

Figure 8. Time-of-Use Rate Schedule
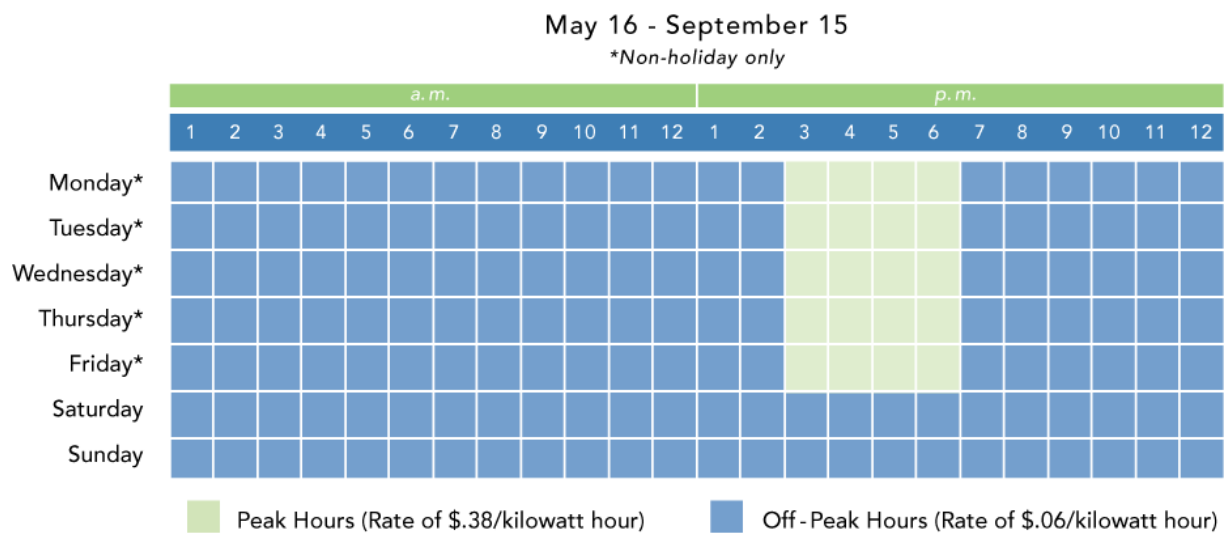
Source: KCP&L

1.1.2   Program Marketing

KCP&L executed a four-pronged approach to generate SGDP technology awareness, engage customers in product training, increase product adoption, and change customer energy management behavior. These approaches were as follows:

> » *Neighborhood Association Outreach* was conducted to increase awareness and understanding of smart grid benefits and trigger interest in products and services.

> » *SmartGrid Energy Resource Fairs* were held to provide basic and in-depth product training, distribute MySmart Displays to customers, and offer additional product sign-up opportunities.

> » *Community Outreach Events* were held in partnership with other organizations on a community-wide basis to generate excitement and awareness around smart grid technology, energy efficiency, and weatherization products.

> » *Demonstration House* provides interactive, hands-on opportunities for customers to learn more about the smart grid technology and a portfolio of energy-efficient products.

Awareness was also generated through advertisements in neighborhood newspapers and outdoor advertising within the SGDP zone.   Media channels were leveraged through press conferences (held in September 2009 and December 2009) and reporter briefings. Lastly, two articles on the demonstration house were published in the *Kansas City Star* and *Greenability Magazine*.

In addition to building awareness and generating interest, KCP&L conducted specific marketing activities for each of the SGDP products, as described in Table 1.

Table 1. KCP&L SGDP Marketing Tactics by Product Type

Product	Segment	Tactics
MySmart Portal	Mass Marketing	» Introduction letter and Welcome kit Outreach events Direct mail
	Targeted Marketing	» AccountLink customers (687) via email and online tools Optimizer online users
MySmart Display	Mass Marketing	» Intro letter and Welcome kit Outreach events Direct mail
	Targeted Marketing	» Customers who are behind in paying or have requested weatherization assistance - direct mail and telemarketing
MySmart Thermostat	Mass Marketing	» Intro letter and Welcome kit Outreach events Direct mail
	Targeted Marketing	» Customers who have central AC

Source: Navigant analysis of KCP&L materials

KCP&L also developed a website (www.kcplsmartgrid.com) with information on each of the products and TOU rate and communications targeting KCP&L employees. These included source and e-News Update articles and KCP&L Leadership video for all employees and a personal e-mail and luncheon for employees living in the project area.

1.1.3   Summary of Participation

Using the MySmart Portal as a proxy to understand overall participation in the SGDP, Navigant reviewed Google Analytic and program tracking data from both versions of the MySmart Portal. Figure 9 shows that the first portal version's page views fluctuated quite significantly from October 2010 through October 2012, hitting peaks in September 2011 and again in September 2012. Page views for the second version remained minimal for the first few months, gradually increased from February 2013 through June 2013, and then gradually declined from July 2013 through April 2014. Page view spikes occurred in September and December 2011, and August 2012 for the first website, and in July 2013 for the second website.

Figure 9. Number of Page Views

Note: Green indicates data from the first version of the portal, and blue indicates data from the second version.
Source: Navigant analysis of Google Analytic data

1.2   *Evaluation Objectives and Methodology*

Over the course of a number of years (2012-2014), Navigant conducted a process evaluation of each of the SGDP's components, including the MySmart Portal, the MySmart Display, MySmart Thermostat, Home Area Network, and Time-of-Use Rates. The evaluation team used online and phone surveys to explore participant experience and satisfaction with each component, conducted an analysis of the MySmart Portal's web analytics to understand participant usage patterns, and interviewed project stakeholders to identify lessons learned about the program operations and technologies deployed throughout the program.

1.2.1   MySmart Portal

Navigant originally received a list of 420 customers who had signed up for KCP&L's MySmart Portal. Of that group, 342 had associated email addresses and after removing duplicate entries, the evaluation team developed a list of 332 unique customers to contact for the MySmart Portal participant survey. This included customers who signed up for the portal between October 2010 and March 2014. Navigant developed an online survey for this population and Navigant's in house survey expert administered the survey between July 8 and August 15, 2014. To incentivize participation, the evaluation team implemented a lottery-style incentive, randomly selecting one respondent to receive a $100 Visa gift card. Ultimately, the survey yielded 49 complete results, with an additional 22 entries from respondents who started a survey, but did not complete all questions. The final survey disposition is provided in Table 2.

Table 2. 2014 MySmart Portal Participant Online Survey Disposition Report

Disposition of Web Survey Activity 07/08/14 – 08/15/14	Count
A. Total Email Addresses	342
B. Total Unique and Functional Email Addresses	332
C. Complete	49
D. Partial-Complete	22
E. Bounced Emails	8
F. Started Survey	72
G. Viewed Survey	49

1.2.2   MySmart Display

Navigant conducted the MySmart Display surveys via telephone in 2012 by a professional survey house, Bellomy Research. No survey incentive was offered. There were 625 MySmart Display participants enrolled in the MySmart Display program through July of 2012. The earliest participants, who received their displays through door-to-door outreach during the SGDP deployment, were targeted by KCP&L through another outreach effort and were removed from the survey sample frame. There were 195 of these participants from November 2010 through February 2011. The remaining 430 participants, who received their display devices from March of 2011 up until July 30, 2012, made up the population for the survey. Navigant mailed a postcard six days in advance of the start of surveying (see Figure 10).

Figure 10. 2012 MySmart Display Survey Advance Postcard

KCP&L SmartGrid is delivering benefits to customers within your community

KCP&L SmartGrid project gives customers the opportunity to have greater control over their electricity use, helping save money on their monthly electric bill. Educating customers and giving them the tools to manage their electricity use and costs are essential components to the success of the project.

We are asking a group of our customers to participate in an important phone survey. A member of your household at the address above has been selected to participate in this customer survey. The results of this study will help guide our plans and actions to assure that we continue to meet customer needs in the years ahead.

This survey is for research purposes only. Because we respect your privacy, your answers will be entirely confidential and no sales or solicitation of any kind will result from your participation. *Someone will be calling you on behalf of KCP&L in the next couple of weeks. We thank you in advance for participating in this important research.*

Get more information about KCP&L's SmartGrid project at *www.kcplsmartgrid.com*

Source: Navigant with support from KCP&L communications

The MySmart Display phone surveys were conducted beginning on September 24, 2012, and ending October 3, 2012. Call attempts were made to each telephone number in the sample frame. The final survey disposition is provided in Table 3.

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Table 3. 2012 MySmart Display Telephone Survey Disposition Report

Disposition of Call Attempts 9/25 to 10/3	Count
A. Total Numbers	430
B. Total Numbers Available For Dialing	418
ALL DIALINGS	
C. Complete	**72**
D. Quit	0
E. Saved Callback (mid survey)	34
F. No answer	144
G. Busy	23
H. Disconnect/Wrong #/Blocked #/No such person	70
I. Business/Government	7
J. Deaf/Language Barrier	1
K. Answering machine	771
L. Initial refusal	1
L2.Respondent Refused	40
M. Callback for correct person	108
N. Changed number	0
O. Total Dialings (SUM(C..N))	**1364**
SCREENED (DISQUALIFIED)	
S1A Not familiar with MySmart Display	10
S2 Does not have display	2
S2A Doesn't know what happened to display	18
S3A TERM POINT	63
Z. Total screened out (SUM(TC's))	**93**
a. Total numbers tried (B-d)	418
b. Total numbers eliminated (C+D+H+I+J+L+L2+Z)	284
c. Total numbers remaining (B-b)	**134**
d. Virgin numbers remaining (Out of Queued)	0
e. Total contacted (C+D+E+I+J+L+L2+M+Z)	356
f. Total screened (C+Z)	165
Cooperation Rate (per contact) (f/(f+L+L2))	**80%**

Source: Navigant analysis of call center disposition data

1.2.3 MySmart Thermostat and HAN

For the MySmart Thermostat and HAN phone participant survey, Navigant received a sample file of 94 customers who received a thermostat through the SGDP. The sample file included information on the type of thermostat (AMI or HAN), as well as whether the homeowner opted out of each demand response event called by KCP&L. Navigant contracted with Bellomy Research to implement the phone survey between October 28 and November 10, 2014. To incentivize participation, each survey respondent was given a $25 Visa gift card in exchange for a complete survey. The final survey disposition is provided in Table 4.

Table 4. 2014 MySmart Tstat/HAN Survey Disposition

Disposition of Call Attempts 10/28 to 11/08	Count
A. Total Numbers	91
B. Total Numbers Available For Dialing	87
ALL DIALINGS	
C. Complete	**34**
D. Quit	0
E. Saved Callback (mid survey)	9
F. No answer	31
G. Busy	2
H. Disconnect/Wrong #/Blocked #/No such person	15
I. Business/Government	0
J. Deaf/Language Barrier	2
K. Answering machine	73
L. Initial refusal	0
L2.Respondent Refused	10
M. Callback for correct person	13
N. Changed number	1
X. Left Message to call 800#	68
O. Total Dialings (SUM(C..N))	**263**
SCREENED (DISQUALIFIED)	
SCR2 Most knowledgeable person about electric utility	3
M2A1 No other adult who recalled MySmart Thermostat	2
Z. Total screened out (SUM(TC's))	**5**

Disposition of Call Attempts 10/28 to 11/08	Count
a. Total numbers tried (B-d)	87
b. Total numbers eliminated (C+D+H+I+J+L+L2+Z)	66
c. Total numbers remaining (B-b)	**21**
d. Virgin numbers remaining (Out of Queued)	0
e. Total contacted (C+D+E+I+J+L+L2+M+Z)	73
f. Total screened (C+Z)	39

Source: Navigant analysis of call center disposition data

1.2.4   Time-of-Use Rates

For the TOU phone participant survey, Navigant received a sample file of 115 customers who participate in the billing structure. Of those, the evaluation team had to eliminate three due to incomplete contact information, leaving 112 customers available to be contacted. Navigant contracted with Bellomy Research to implement the phone survey between September and October 2014. To incentivize participation, each survey respondent was given a $20 Visa gift card in exchange for a complete survey. Ultimately, the survey yielded 47 complete results. The final survey disposition is provided in Table 5.

Table 5. 2014 TOU Telephone Survey Disposition Report

Disposition of Call Attempts 9/24/14 to 10/12/14	Count
A. Total Numbers	112
B. Total Numbers Available For Dialing	110
ALL DIALINGS	
C. Complete	**47**
D. Quit	0
E. Saved Callback (mid survey)	19
F. No answer	61
G. Busy	1
H. Disconnect/Wrong #/Blocked #/No such person	10
I. Business/Government	0
J. Deaf/Language Barrier	1
K. Answering machine	146
L. Initial refusal	7
L2.Respondent Refused	6
M. Callback for correct person	18
N. Changed number	0
X. Left Message to call 800#	48
O. TOTAL DIALINGS (SUM(C..N)	376

Disposition of Call Attempts 9/24/14 to 10/12/14	Count
SCREENED (DISQUALIFIED)	
SCR2. Most knowledgeable person about electric utility	8
SCR3. Appropriate person to discuss rate plan/energy use	1
RS2A1. No other adult who signed up for the TOU program	2
SCR4. Most knowledgeable person about electric utility	1
Z. Total screened out (SUM(TC's))	**12**
a. Total numbers tried (B-d)	110
b. Total numbers eliminated (C+D+H+I+J+L+L2+Z)	83
c. Total numbers remaining (B-b)	**27**
d. Virgin numbers remaining (Out of Queued)	0
e. Total contacted (C+D+E+I+J+L+L2+M+Z)	110
f. Total screened (C+Z)	59

Source: Navigant analysis of call center disposition data

2   MySmart Portal

Participants use a customer-supplied home computer and Internet connection to log in to the MySmart Portal, which provides them with energy information and engages them in energy usage decisions.

This section presents the findings from the MySmart Portal participant online survey, conducted in the spring of 2014. The evaluation team contacted customers who had signed up for the portal via email, asking them to complete a brief online survey about their experience with the portal. To incentivize participation, Navigant devised a lottery prize system and selected one respondent to receive a $100 Visa gift card. Overall, 71 respondents began the survey and answered some questions; however, only 49 respondents completed the entire survey. Questions from respondents who dropped out part way through the survey are included in the analysis, and Navigant denotes the total number of respondents for each question throughout the analysis in both text and graphics.

The evaluation team found that, in general, MySmart Portal survey respondents do not appear to relate the portal to the overall SGDP program, and indeed many are entirely unfamiliar with the SGDP program or do not recognize the name. Most respondents reported learning about the portal via the KCP&L website (48%, n = 80) or through an email from KCP&L (33%, n = 80). Overall, respondents reported using the web portal more for purposes of understanding and controlling their energy use, as opposed to finding ways to save money. Respondents expressed this trend through their selections of the pages they visit most often, the ones they find most useful, and a direct question about why they originally signed up for the portal.

Overall, satisfaction with the MySmart Portal and KCP&L is high; however, the evaluation team found that the site may not be successful in holding people's attention over the long term. Almost half of respondents (42%, n = 59) reported that they had not looked at the MySmart Portal in the last month from the date they took the survey, and only 22 percent reported visiting the site more than once in the same time frame. Thirty-six percent of respondents stated that the frequency at which they visit the site has decreased since they first joined the MySmart Portal (n = 59).

To complement findings from the MySmart Portal participant online survey, Navigant analyzed website data from two versions of KCP&L's MySmart Portal. A full summary of results is located in Appendix A.

2.1   *Program Experience*

Survey respondents reported low levels of familiarity with the overall SGDP, though most could recall creating an account on the MySmart Portal website. When asked to rate their familiarity with the overall SGDP on a scale from one to five, the majority (78%, n = 71) rated their familiarity at a three or lower, as shown by Figure 11. Only 9 percent of respondents indicated that they are "extremely familiar" with the program (n = 71). This implies that web portal users do not clearly relate the MySmart Portal with the overall SGDP, and in many cases (25% of respondents) may not even be aware of what the SGDP is.

Figure 11. How would you rate your familiarity with KCP&L's SmartGrid program (MySmart Portal participants)?
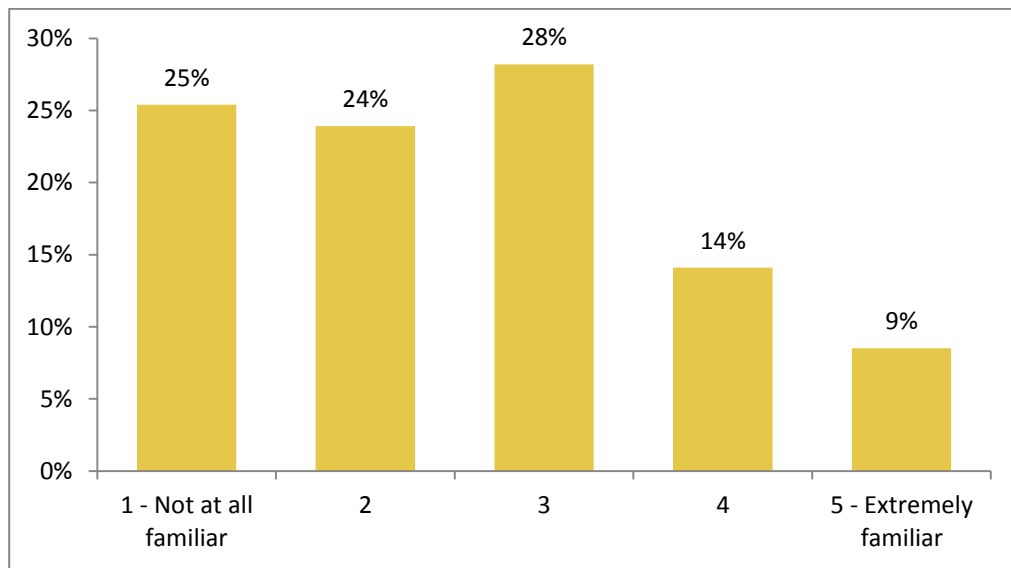
Note: n = 71
Source: Navigant analysis of survey response data

Eighty-nine percent of survey respondents (n = 71) recalled creating a MySmart Portal account without prompting. For the seven respondents who could not immediately recall whether they had created an account, five recalled creating the account after the survey prompted them with a short description of the portal. The evaluation team terminated the remaining two surveys after determining that the respondent had no recollection of creating the account.

Respondents reported learning about the program via three primary channels: the KCP&L website, an email from KCP&L, and direct mail materials. Almost half of the respondents reported hearing about the MySmart Portal via the KCP&L website (48%, n = 69). Not one respondent reported learning about the program by seeing a billboard, despite billboard marketing efforts July through December 2012. Figure 12 shows all responses to this question.

Figure 12. How did you hear about the MySmart Portal program?
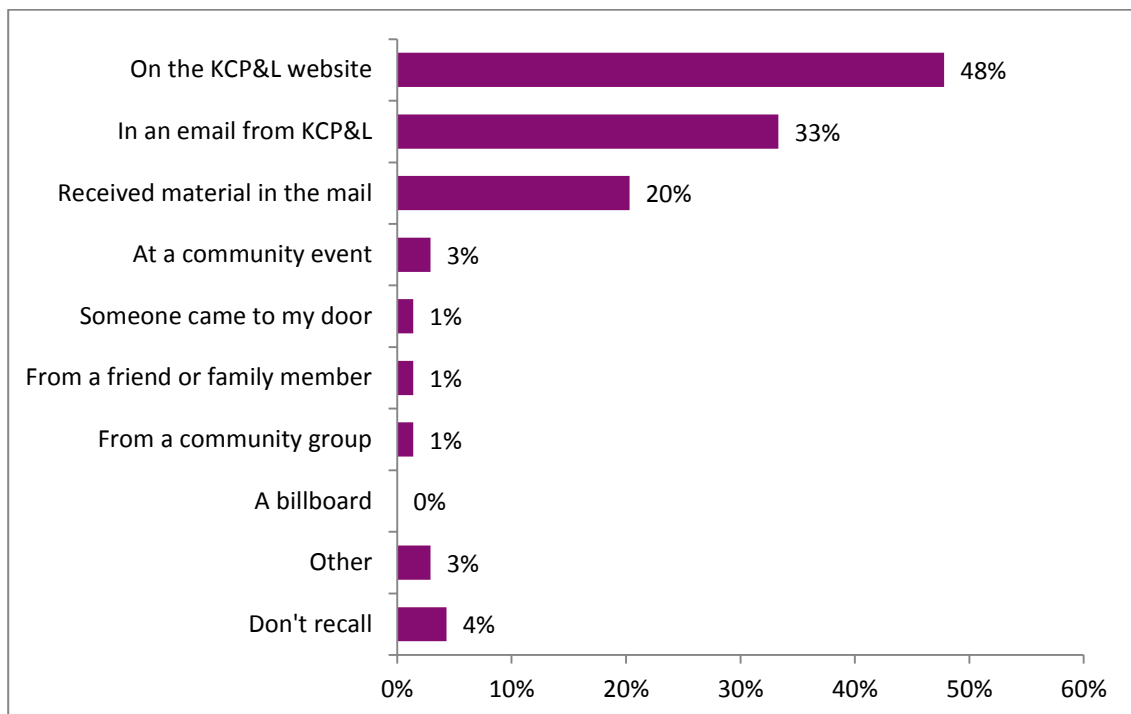
Note: n = 80; multiple responses accepted. "Other" includes a respondent who read about similar programs on the Internet and looked into local offerings, as well as a respondent who indicated that they simply assumed that a web portal existed.
Source: Navigant analysis of survey response data

Respondents reported that they primarily view the portal as a way to track and understand their home energy use, and secondarily as a tool to help them save money. When asked to select the main reason they started using the MySmart Portal from a list of options, Figure 13 shows that almost 50 percent (n = 59[1]) of respondents indicated that it was because they wanted to take control of their energy use. Approximately one third selected saving money, while only 9 percent indicated that protecting the environment was the main reason they began using the portal. This is in line with the extent to which respondents agreed to various reasons they had for signing up for the portal (see Figure 14).

Figure 13. What is the main reason you started using the MySmart Portal?
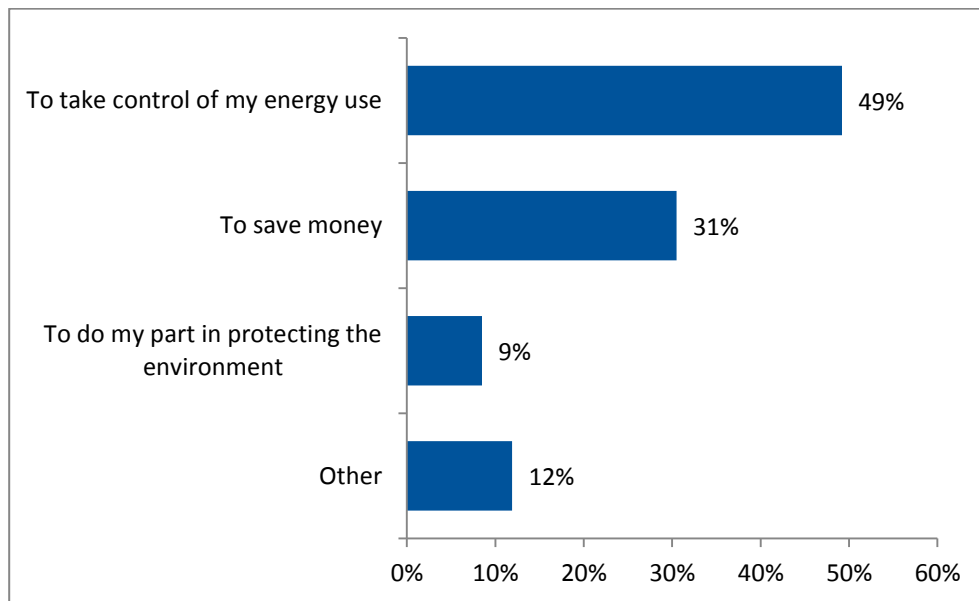
Note: n = 59. "Other" includes wanting an easy method to pay bills, wanting to view bills before they arrive through the mail, wanting to be more aware of energy use, and enjoying having access to data in general.
Source: Navigant analysis of survey response data

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[1] As a reminder to the reader, the number of respondents changes throughout the presentation of results due to some respondents exiting the survey before answering all questions.

Navigant also asked respondents to share other reasons they had for starting to use the MySmart Portal, rather than one of the options in the list. Five respondents mentioned that they wanted to specifically track what appliances use energy at specific times, while other respondents simply reiterated taking control of energy use and saving money.

Figure 14. Additional reasons for Using MySmart Portal
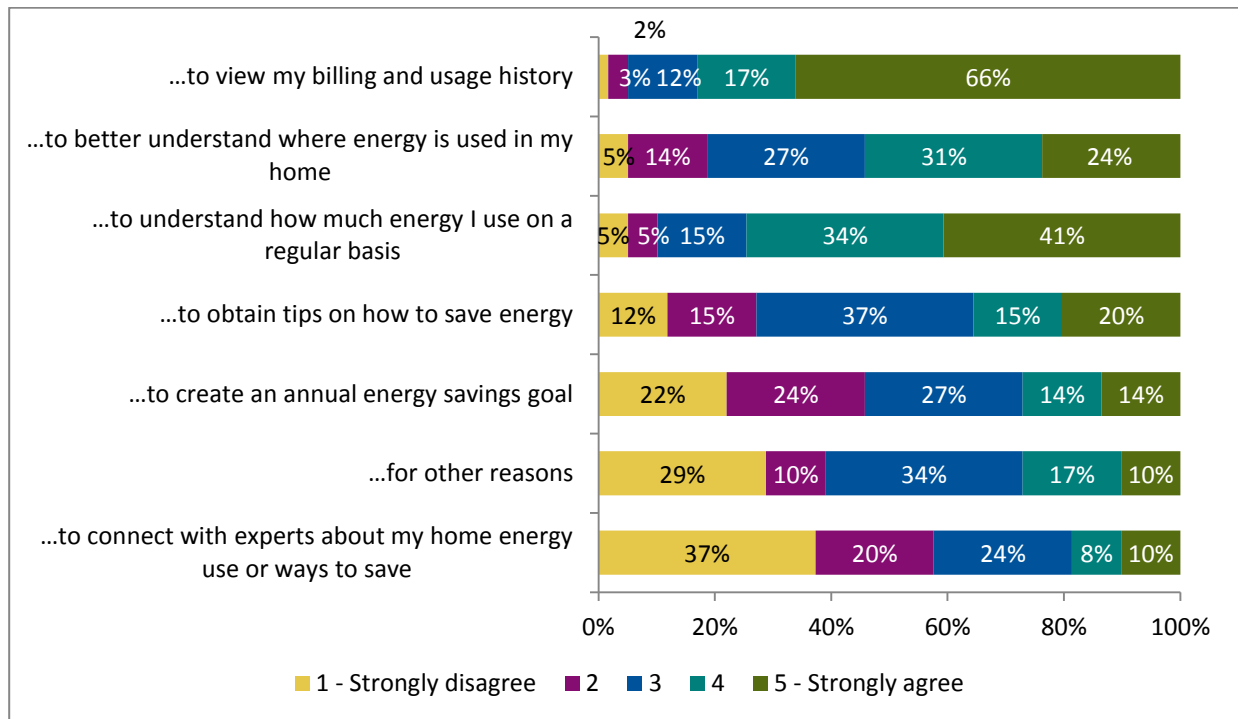
Note: n = 59
Source: Navigant analysis of survey response data

The survey responses also highlight the participants' prioritization of taking control of their energy use. When asked to rate how frequently they visited specific pages within the last 12 months, respondents reported visiting the "Your Energy Use", "Dashboard", and "Billing and Usage History" pages most frequently. By comparison, 75 percent of respondents reported that they have never visited "Ask an Expert", 44 percent said they have never visited the "Set an Energy Savings Goal" page, and 20 percent reported never visiting the "Energy-Saving Tips" section (n = 59). Figure 15 provides a full look at these respondent answers.

Figure 15. Please rate how frequently you used each of the following sections in the MySmart Portal within the past 12 months.
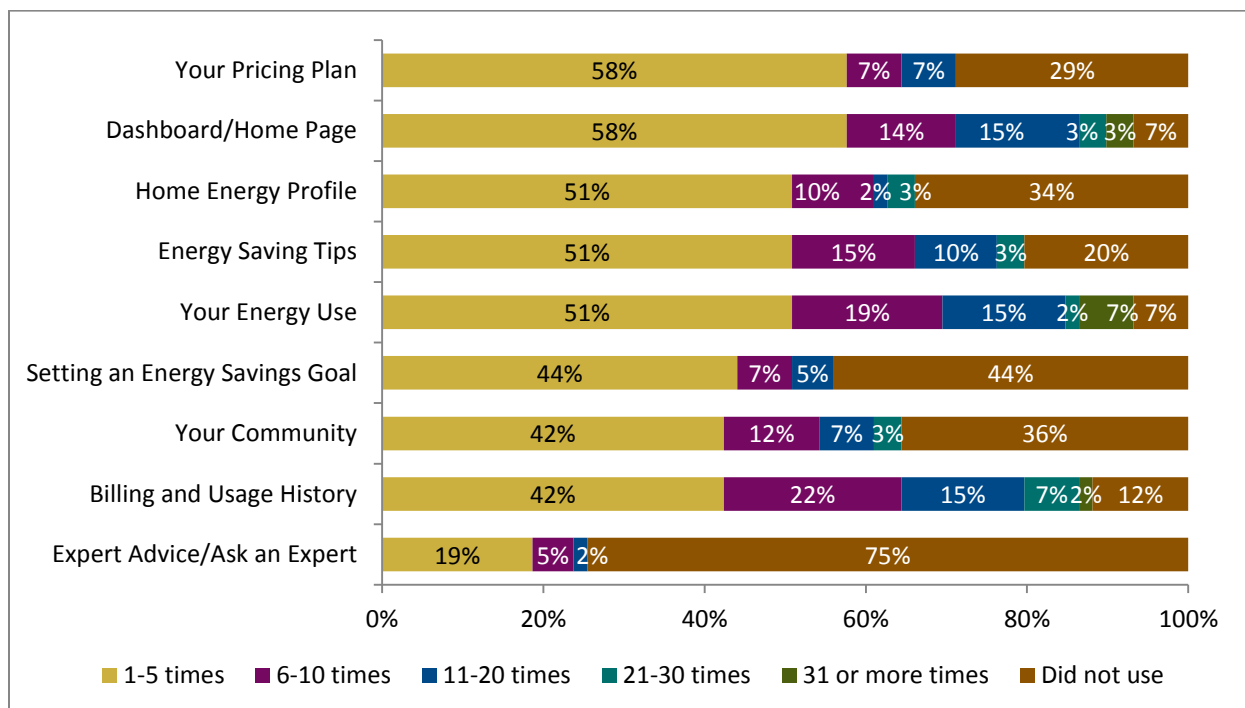
Note: n = 59
Source: Navigant analysis of survey response data

With the exception of the Dashboard, which functions as the home page, all of the site's pages require users to navigate the web portal by clicking through to one or more pages. The pages most frequently visited by respondents are those that correspond with tracking personal energy use, which is in line with respondents' reported reasoning for starting to use the web portal. These findings are also in agreement with insights gleaned from the web portal analytics analysis, which found that Dashboard, My Energy Use, and Billing and Usage History, are the three most frequently visited interactive/informative pages.

Respondents reported the most useful pages to be Billing and Usage History, followed by Your Energy Use and Dashboard. This is in line with the abovementioned support that shows that customers primarily use the site to view their contextualized billing data, and find energy-saving tips and advice from experts to be less useful. This corresponds to the pages that respondents report visiting most frequently, as well as their primary reason for signing up for the portal. Figure 16 provides a breakdown of respondent ratings on the usefulness of each of the MySmart Portal pages.

Figure 16. How would you rate each of the following sections in the MySmart Portal?
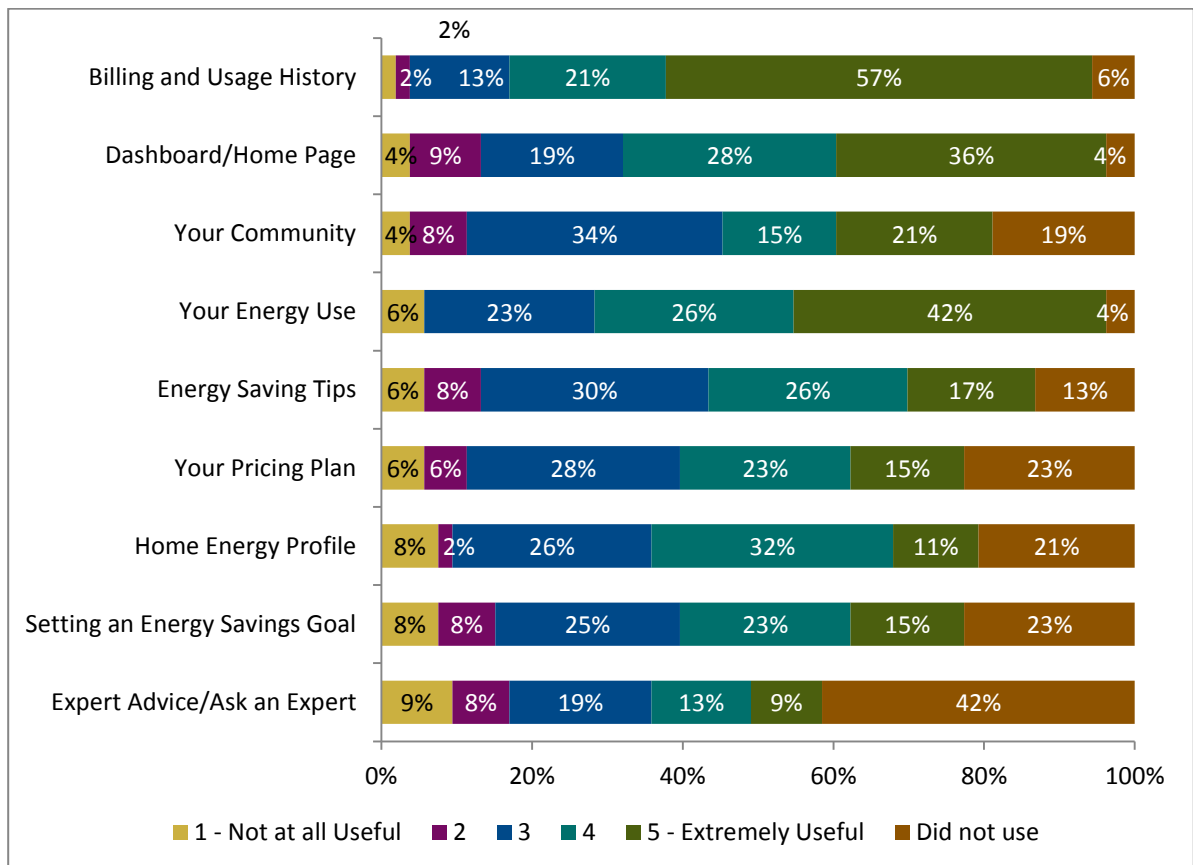
Note: n = 59
Source: Navigant analysis of survey response data

The MySmart Portal appears to struggle with maintaining user interest over the long term. Survey respondents include customers who had signed up for the portal as early as October 2012, up until March 2014. Most survey respondents reported that they have not looked at the MySmart Portal within the last month of taking the survey (42%, n = 59). Thirty-six percent mentioned visiting the portal no more than one time, as shown by Figure 17, and only one person visited the page more than five times within the past month.

Figure 17. How often have you looked at MySmart Portal in the last month?
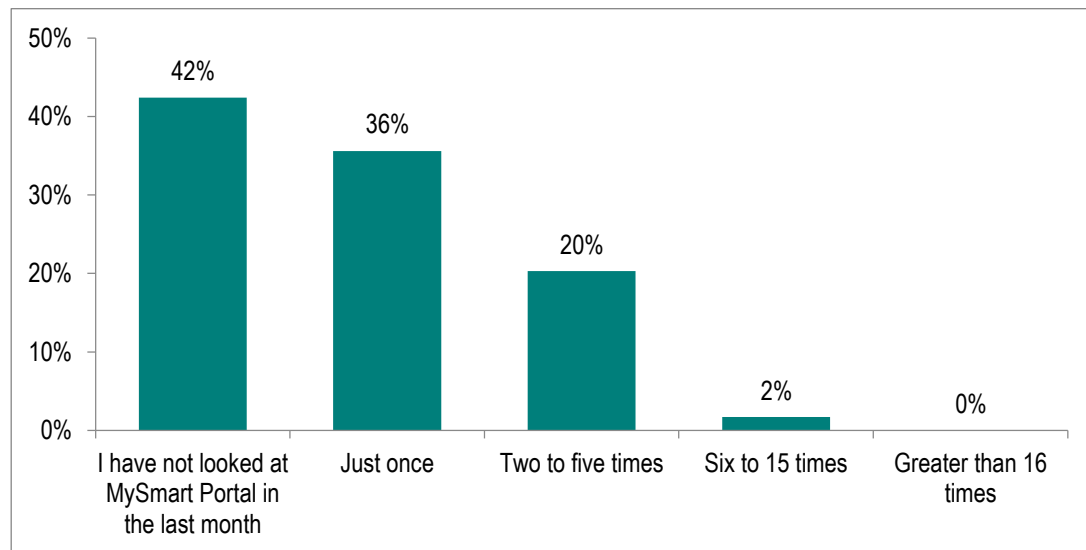
Note: n = 59
Source: Navigant analysis of survey response data

In addition, 36 percent of respondents reported that the frequency at which they visit MySmart Portal has decreased since they first created an account (n = 59). Only 17 percent indicated that the frequency of their visits has increased, while 48 percent reported that the frequency has stayed the same (see Figure 18). For those who reported a decrease in the frequency at which they visit, respondents provided a variety of reasons. Two people mentioned that they moved, while six mentioned that they either forgot about it or did not find it that useful. Two respondents indicated that the tool was not useful or does not give them the information they are looking for, and one commented that the upload time of the data takes too long. Respondents who reported an increase in the frequency at which they visit the site also provided a variety of responses, including that they use online tools more frequently in general, wanting to track how a change in the home impacts daily usage (e.g., when a roommate goes out of town), the site has become easier to use over time,[2] investigating recent spikes in billing, and using the remote control tools for the MySmart Thermostat.

Figure 18. How has the frequency at which you visited the MySmart Portal changed since you first signed up?
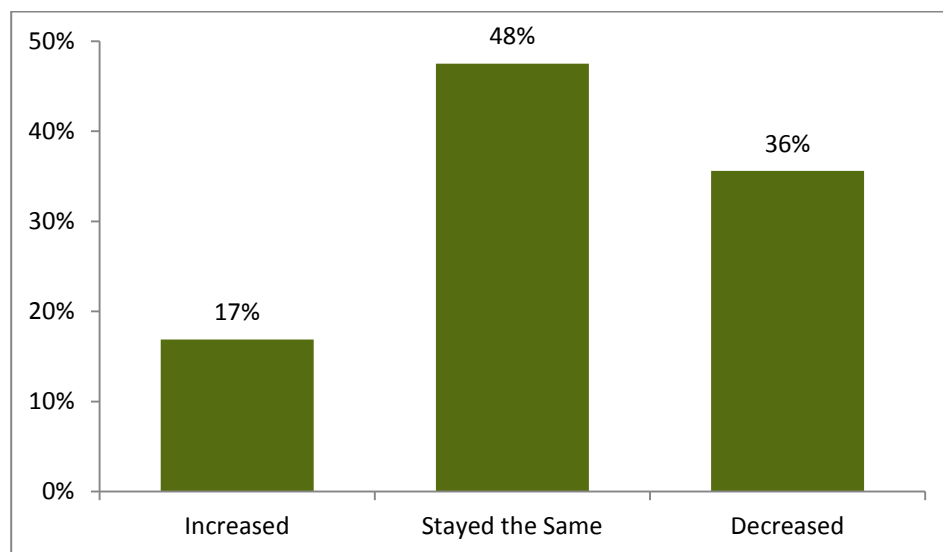
Note: n = 59
Source: Navigant analysis of survey response data

These findings help to shed more light on patterns seen in the web analytics memo (Appendix A). The evaluation team observed that site traffic (page views and number of sessions) began decreasing towards the end of the observation period – April 2014, and suggested that without further context this could simply be part of seasonal spikes in portal traffic. The above findings provide more context on these patterns, and suggest that a decrease in traffic may be more attributable to a certain subset of users losing interest in the site.

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[2] It is possible that this respondent is comparing the current web portal to the previous version, and indicating that the current version is more user friendly. The evaluation team is not able to confirm this.

2.2   Energy Use in the Home

Based on the survey responses, KCP&L and the MySmart Portal appear to have had a moderate amount of influence on participants' knowledge of saving energy and taking action to save energy in their homes. When asked to rate the extent to which they agree with the statement "After using the MySmart Portal, I better understand the types of actions I need to take to reduce my electricity usage and save money," respondents gave mixed responses. As shown by Figure 19, 36 percent (n = 59) rated their agreement with the statement at a three, implying that they neither agree nor disagree with the statement. Thirty-four percent rated their agreement at a five, indicating that they strongly agree with the statement.

Figure 19. To what extent do you agree with the statement: "After using the MySmart Portal, I better understand the types of actions I need to take to reduce my electricity usage and save money"?
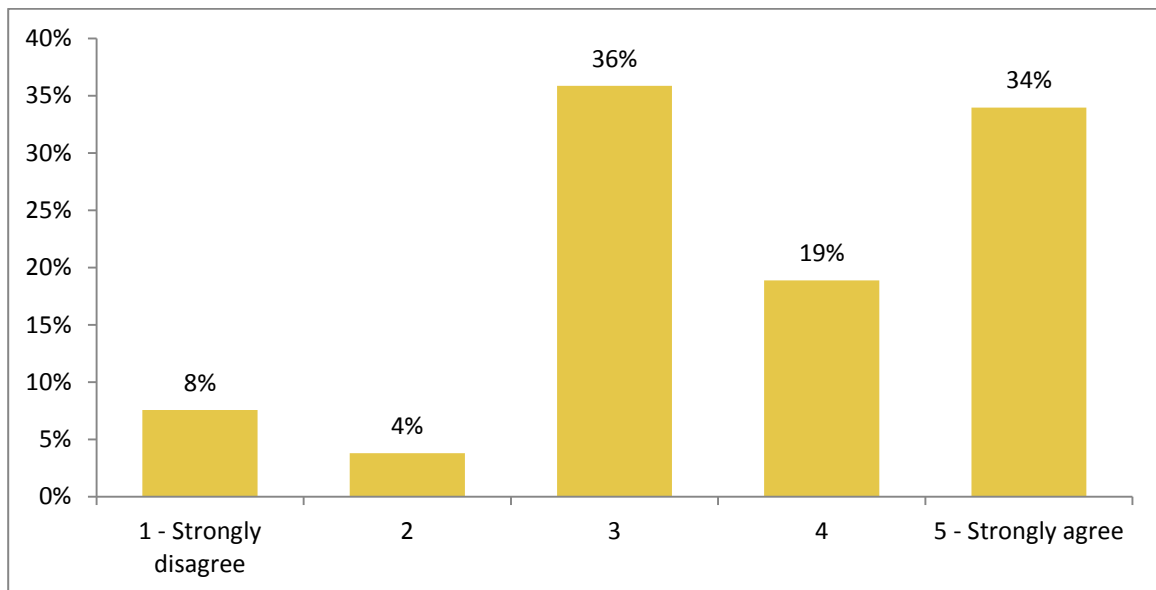
Note: n = 59
Source: Navigant analysis of survey response data

Seventy-nine percent of respondents reported taking steps to save energy in their home in the past year (n = 59). Of the 42 respondents who reported taking action, over half indicated that this included turning off lights and televisions, turning the air conditioning down, and turning computers off when not in use. Other common responses include using the shut-down or "sleep" options for electronics when not in use, unplugging phone or electronics chargers, and turning air conditioning off. Not running an electric dryer and having their home weatherized is not as common. Figure 20 presents a summary of responses to this question.

Figure 20. What actions have you taken to save energy in the home within the past 12 months?
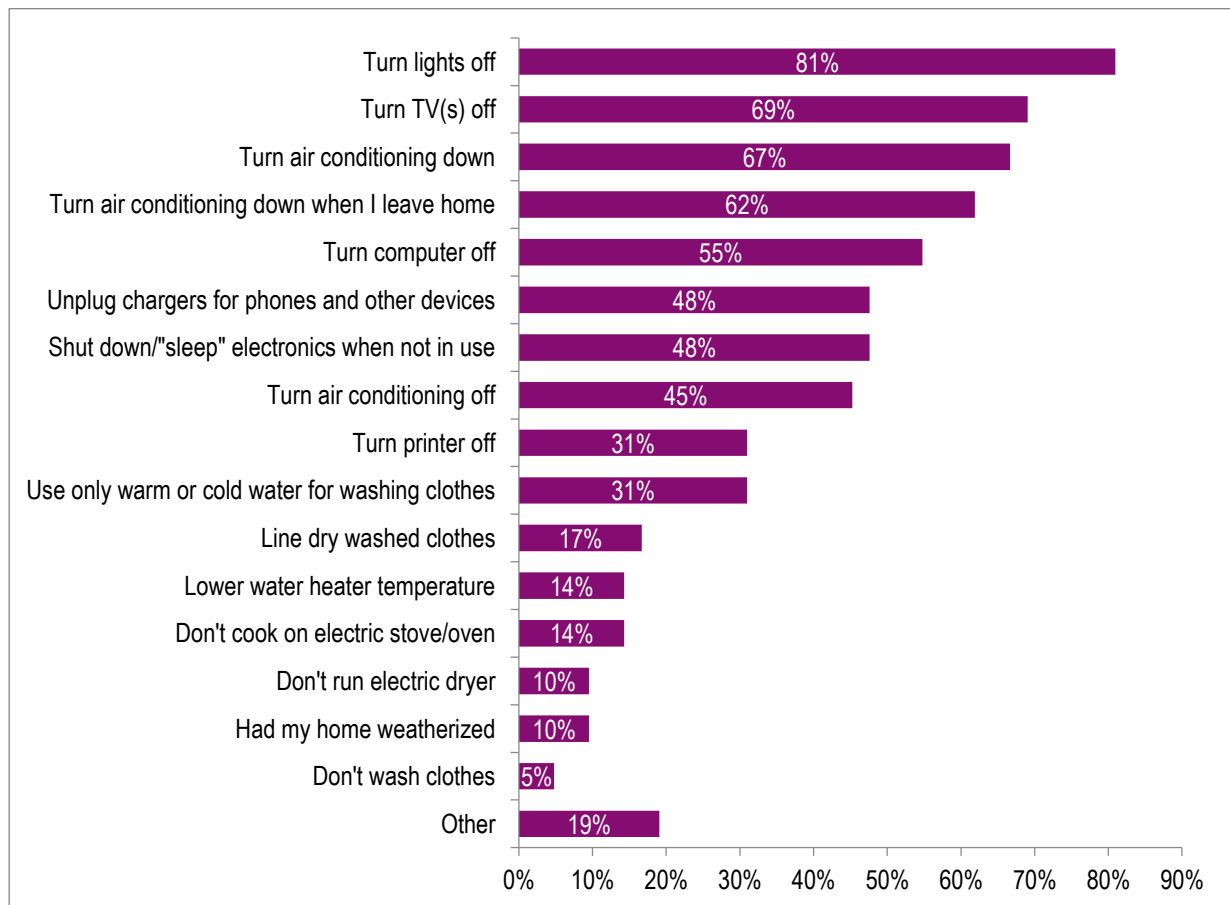
Note: n = 42
Source: Navigant analysis of survey response data

As shown in Figure 21, respondents attribute their decision to take the above-mentioned energy-saving actions to a moderate amount of influence from the program. . Only 15 percent strongly agree that the program influenced them to take action, while 30 percent said they are undecided (n = 42).

Figure 21. How influential was the MySmart Portal in your decision to make these changes in your home?
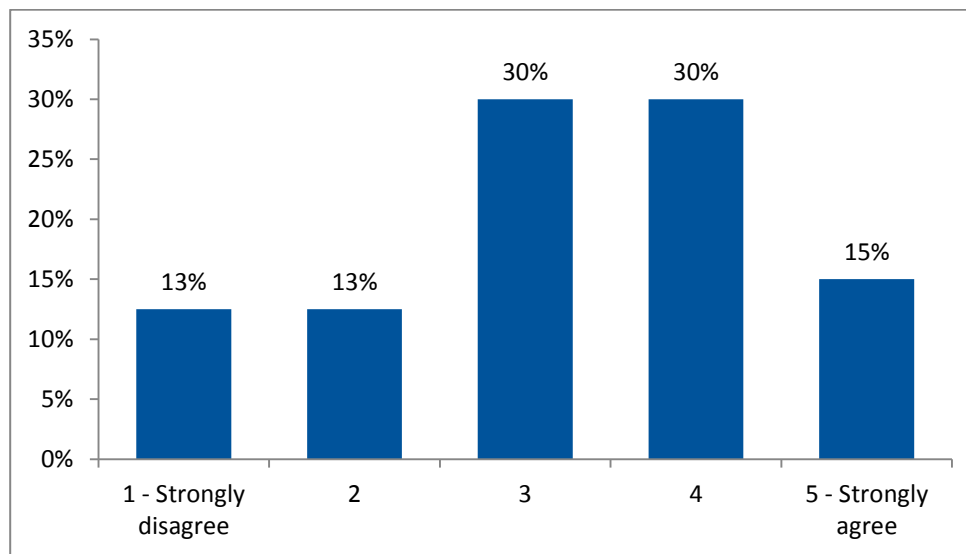
Note: n = 42
Source: Navigant analysis of survey response data

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2.3   Satisfaction

Overall, participants are satisfied with the MySmart Portal, the SGDP, and KCP&L as a company. Navigant asked respondents to rate their satisfaction on a scale from one to five, where five is extremely satisfied. Figure 22 shows that for each satisfaction category, the majority of respondents rated their satisfaction at a four or higher. Respondents are overall less satisfied with the SGDP than with KCP&L or the MySmart Portal, with only 16 percent (n = 49) rating their satisfaction at a five. This is in comparison to the 29 percent (n = 49) of respondents who rated their satisfaction at a five for the other two categories. KCP&L should consider the satisfaction ratings for the SGDP within the context that many respondents reported being not at all familiar, or only slightly familiar with the program as a whole. Explanations given in response to satisfaction ratings imply that respondents may have misinterpreted the question.

Figure 22. Respondent Satisfaction (MySmart Portal Participants)
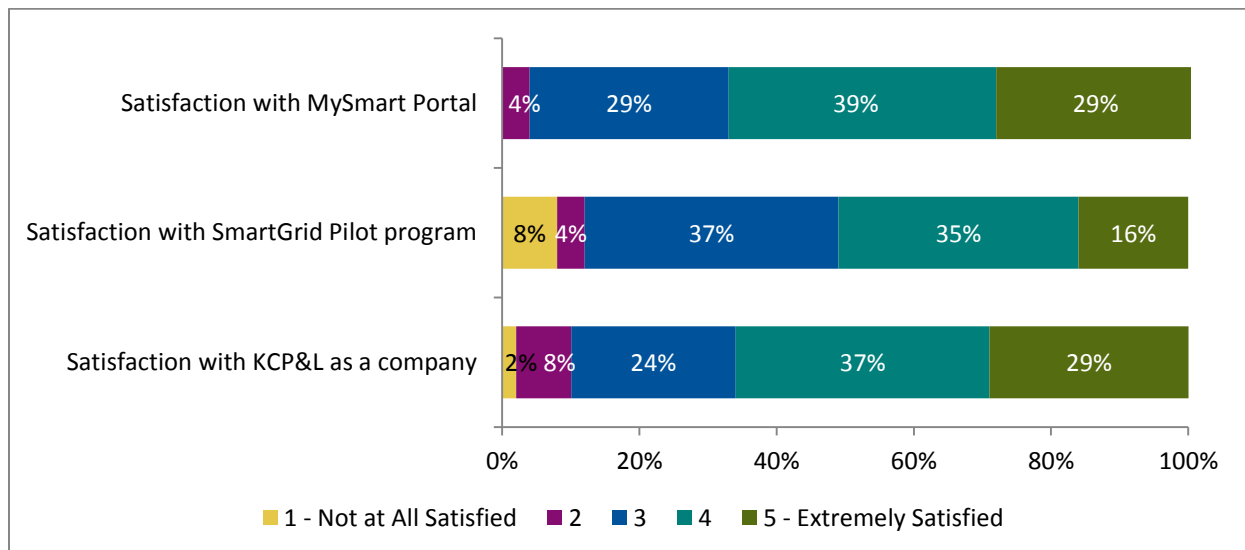
Note: n = 49
Source: Navigant analysis of survey response data

When asked to provide a reason for their rating, comments from the 16 participants who reported dissatisfaction (rating of 3 or below) with the MySmart Portal included four mentions that the site could be easier to use, and one respondent who did not trust the portal since they have to leave the KCP&L web page to access the site. Another respondent mentioned that they believed that the site does not help users to save money. Five of these respondents indicated that there was no particular reason for their dissatisfaction. Echoing feedback given about the web portal, dissatisfied respondents stated that they feel the site is difficult to navigate and that efficiency suggestions are not very practical or impactful. Two respondents indicated that they would like to see the site's content offered through a mobile application. One respondent mentioned that they prefer the "old way" of monitoring their usage and compare past invoices for usage.[3] As stated by one respondent, "It needs a little work. Could be much easier to navigate than it currently is. Perhaps creating a smart grid app would increase participation."

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[3] Navigant does not have enough information to ascertain what is meant by "the old way".

Of the 25 respondents who expressed satisfaction (rating at four or above) with the SGDP, respondents mentioned the convenience of being able to check in on their energy use and learn how to save energy. As one respondent put it (satisfaction rating of five), "I love it, it really got me thinking of what I'm using daily, and what's using energy that I'm not using."

The MySmart Portal appears to have had a moderate impact on customer satisfaction with KCP&L. Figure 23 shows that 41 percent of respondents stated that, since signing up for the MySmart Portal, their satisfaction with KCP&L has increased, while 49 percent indicated that their satisfaction has stayed the same (n = 49). Ten percent of respondents indicated that their satisfaction has decreased. The evaluation team did not ask respondents to elaborate on why their satisfaction has decreased since signing up for the MySmart Portal. The majority, 57 percent, of respondents have not recommended the portal to friends or family members, though 15 respondents indicated that they had made this recommendation.

Figure 23. Since you first signed up for the MySmart Portal, would you say your satisfaction with KCP&L has…
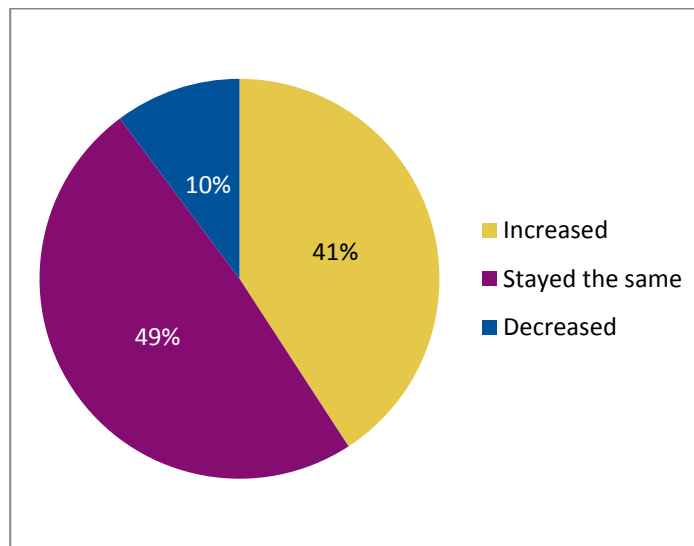
Note: n = 49
Source: Navigant analysis of survey response data

When asked to explain the reasons for their satisfaction rating with KCP&L as a company overall, respondents provided a number of responses. For the 17 respondents that rated their satisfaction at a three or below, implying some level of dissatisfaction, reasons given include power outages, that KCP&L is not customer-oriented, and that billing can be confusing and inconsistent. One customer mentioned that it feels like KCP&L "has us over a barrel" in that its services continually get more expensive and there is no alternative. One respondent mentioned that they recently moved outside of the area covered for the MySmart Portal, and she feels as though there are not many services or attention given to people living in apartments in terms of lowering their energy use. For the 32 respondents who rated their

satisfaction at a four or higher, respondents mentioned that they appreciate KCP&L's efforts to help them save energy and money, and that overall the company seems fair and easy to deal with, especially when transferring service to new residences. One respondent sums this up by stating: "Every time I have called I have been on hold for a short time but then put on the line with a knowledgeable and helpful employee every time. I have confidence that when I call, the problem will most likely be resolved quickly and that I'll be answered by a great employee. Keep up the good work!"

2.4   *Program Improvements*

Respondents provided a variety of suggestions for how to improve the MySmart Portal. Fifty-nine percent of respondents did not have anything to share in regard to how they would like to see the program improve (n = 49). For those who did comment, two respondents mentioned that they would like to see tips for saving broken out by residence type, such as tips for an apartment versus tips for a house. Four respondents mentioned that it would be nice to be able to get real-time data of where their energy is going, with two respondents specifying that they would like to get live "alerts" for when their energy use is particularly high or when they are approaching a goal that they had determined through the web portal. Other suggestions made by individuals include not outsourcing the website, applying the smart portal features on paper bills, increasing the upload/download speeds, offering a tutorial for using the web portal, and simplifying it to coincide more closely with the HAN devices, namely the MySmart Thermostat.

2.5   *Demographics*

The majority of participants who took the online survey regarding their experience with the MySmart Portal fit a specific demographic: they are under 30 years of age with a college degree, and they rent small, single-family homes or apartments and live alone or with one other person. It is possible that this is due to the tendency of this demographic group to be more amenable to giving feedback via online surveys; however, it is also possible that this accurately reflects the demographics of those customers who are most likely to sign up for an online portal to monitor their energy use. A combination of both explanations is most likely.

The following provides a summary of the most common demographic trends.

- » Sixty-nine percent of respondents reported that they rent their home (n = 49).
- » Forty-five percent of respondents reported that they live in an apartment/condo building, while 41 percent indicated that they live in a single-family home (n = 49).
- » Most respondents (73%, n = 49) reported living in a home that is 2,000 square feet or under. Forty-nine percent indicated that their home is between 501-1,000 square feet (n = 49).
- » Only 14 percent of respondents reported living in a household with over two full-time residents. Forty-one percent of respondents indicated that two people reside in their home at least six months of the year, while 37 percent indicated that only one person resides in their home full-time (n = 49).
- » Respondents reported a range of incomes, with the majority reporting that their 2013 household annual income was below $50,000 (n = 49).

» Fifty-five percent of respondents reported that a college degree is the highest education level they have completed (n = 49).

» Almost half of respondents indicated their age as between 22 and 29. Twenty-two percent selected an age between 30 and 39 (n = 49).

3   My Smart Display

The MySmart Display receives direct information from the smart meter and presents data to the customer to aid them in monitoring real-time energy usage. Through the MySmart Display, the customer can get some of the information offered by the web portal, such as estimated energy bill for month-to-date, without having to log into the portal.

This section presents the findings from the survey of MySmart Display participants. This section presents the findings from the MySmart Display participant phone survey, conducted in 2012. Because the program did not change significantly between when this survey was conducted and this report, KCP&L decided not to duplicate this survey in 2014 and feels the initial findings presented here represent an accurate picture of participant views.

Overall, the MySmart Display appears to have been an effective tool for participants to use to gain control of their energy use and save money on their utility bill. The primary reason that survey respondents stopped using their display was because the device broke, never worked in the first place, or was too complicated for them to use. Very few participants had concerns about the MySmart Display program when they first enrolled. Most were motivated to participate to have better control over their electric usage (65 percent) and save money on their utility bill (24 percent).

The MySmart Display program has been effective at encouraging positive energy use behaviors that translate to actual utility bill savings. Participants believe the display is accurate, easy to use, and has the right mix of features. The vast majority (92 percent) of participants are satisfied with their display, leading to an increase in satisfaction with KCP&L for some. Participants tend to be older and have higher levels of education than the average resident in the SGDP territory: The demographic makeup of the participants suggests that the MySmart Display program will have applicability across the broader service territory.

3.1 Program Experience

The 2012 survey asked MySmart Display participants about their awareness of the overall SGDP in their local community. Overall, there was a high level of awareness, with almost 75 percent of respondents reporting that they were somewhat or completely aware, and only 22 percent of respondents reporting that they were completely unaware of the project. Figure 24 shows this distribution.

Figure 24. Awareness of KCP&L's SGDP
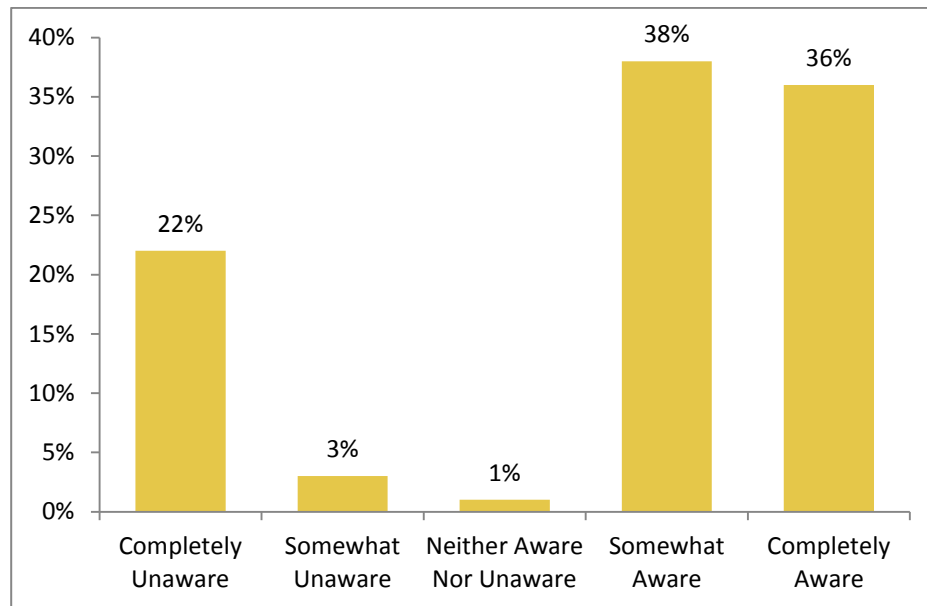
Note: n = 72
Source: Navigant analysis of survey response data

Overwhelmingly, participants reported that it was important to them that KCP&L continue to provide the smart grid benefits in the community. These benefits included hiring project leads and installers that live and work within the local community, as well as the dedicated smart grid office that allows customers to pick up smart grid products and get additional information from a live person. Figure 25 shows that more than 60 percent of respondents ranked these benefits as extremely important.

Figure 25. Importance of Providing Smart Grid Benefits in the Community
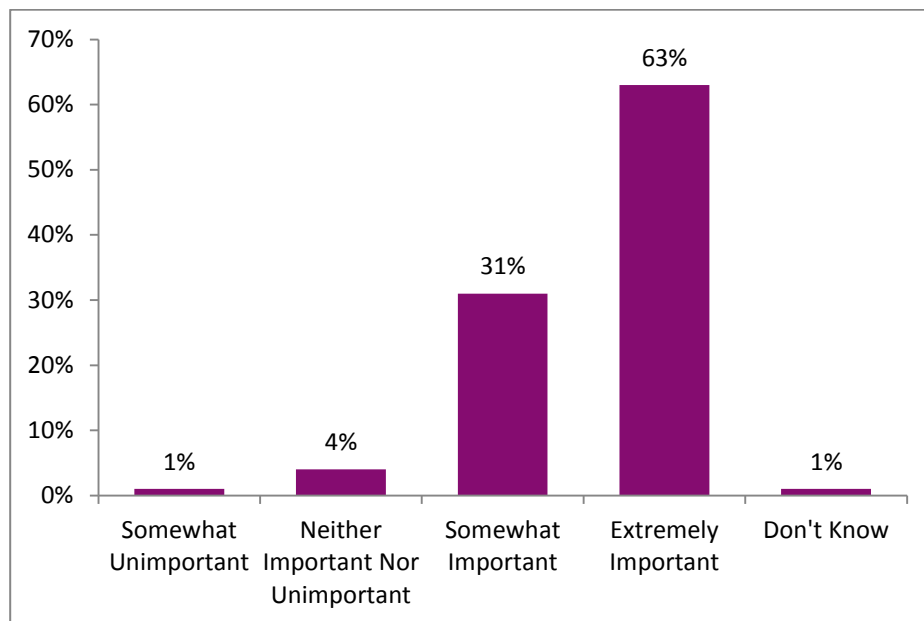
Note: n = 72

Source: Navigant analysis of survey response data

One of the key objectives of the survey was to determine whether participants still had their MySmart Displays installed in their home. When asked this question in the survey, over 85 percent of respondents surveyed still had their display, as shown in Figure 26.

Figure 26. Is your display still installed?
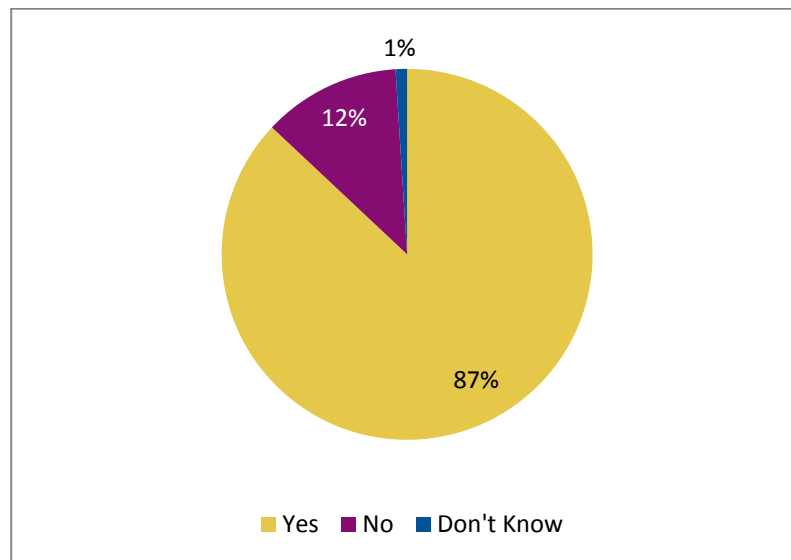
Note: n = 155
Source: Navigant analysis of survey response data

For those that no longer had their MySmart Display (18 respondents), the most common reported reasons were that the displays stopped working (28 percent of respondents), or that KCP&L took the display from the homes (22 percent of respondents). Only 11 percent of respondents reported that they moved out of the home with the display. These results are presented in Figure 27.

Figure 27. What happened to the display?
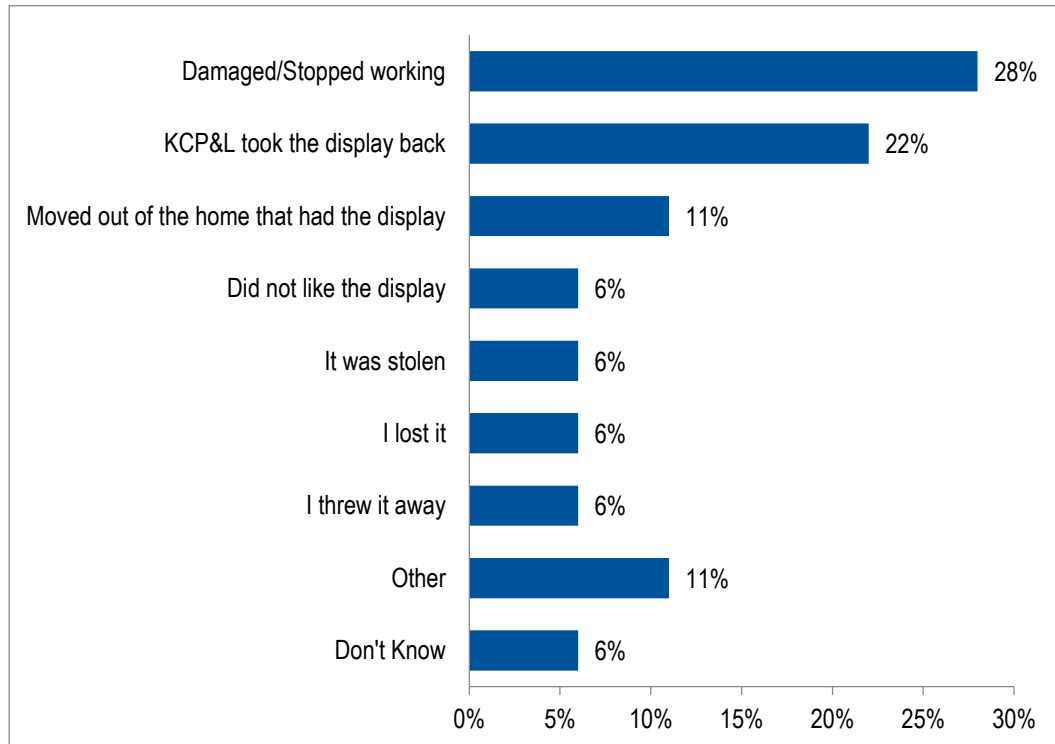
Note: n = 18
Source: Navigant analysis of survey response data

For those participants that did still have their MySmart Display, almost half reported that they did not use the display at all. However, for those that did use the display, most said they use it weekly or daily. Approximately 40 percent reported using their display on a daily or weekly basis. Figure 28 shows the frequency of use of the MySmart Displays.

Figure 28. Frequency of MySmart Display Usage
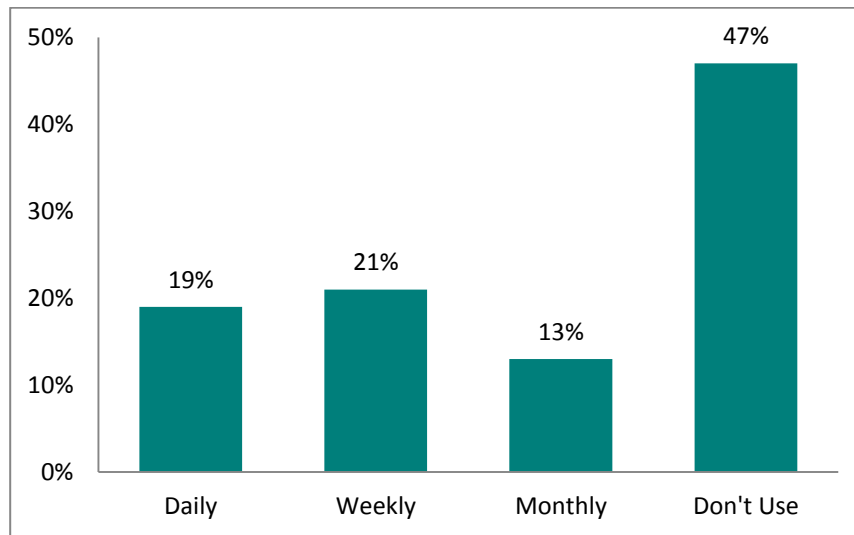
Note: n = 135
Source: Navigant analysis of survey response data

Proper operation is the primary driver of display usage. Thirty-five percent of respondents who no longer used their displays when surveyed reported that they no longer worked, and 22 percent reported that their displays never worked. Though the customers reported that their displays were unable to operate properly, these customers did not return their display to KCP&L, but instead kept them in their homes, unused. Figure 29 shows all reported reasons why participants no longer use their displays.

Figure 29. Why did you stop using the MySmart Display?
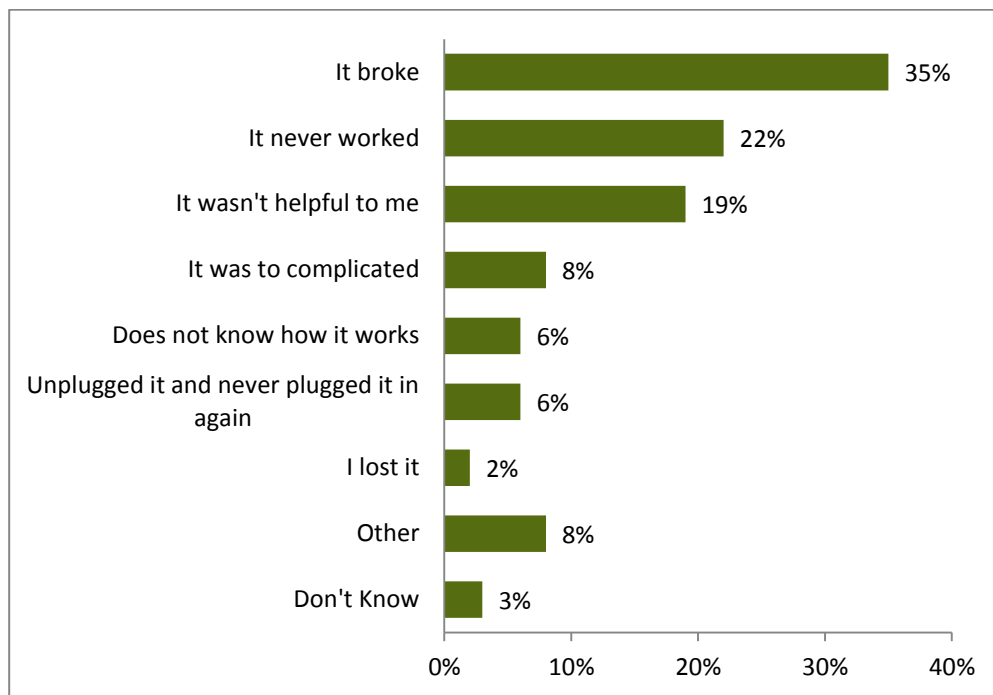
Note: n = 63
Source: Navigant analysis of survey response data

3.2 Motivations and Concerns

Surveyed participants reported that community events were their primary sources of awareness about the MySmart Display program, along with mailed brochures and community groups. These results are shown in Figure 30.

Figure 30. Source of Program Awareness
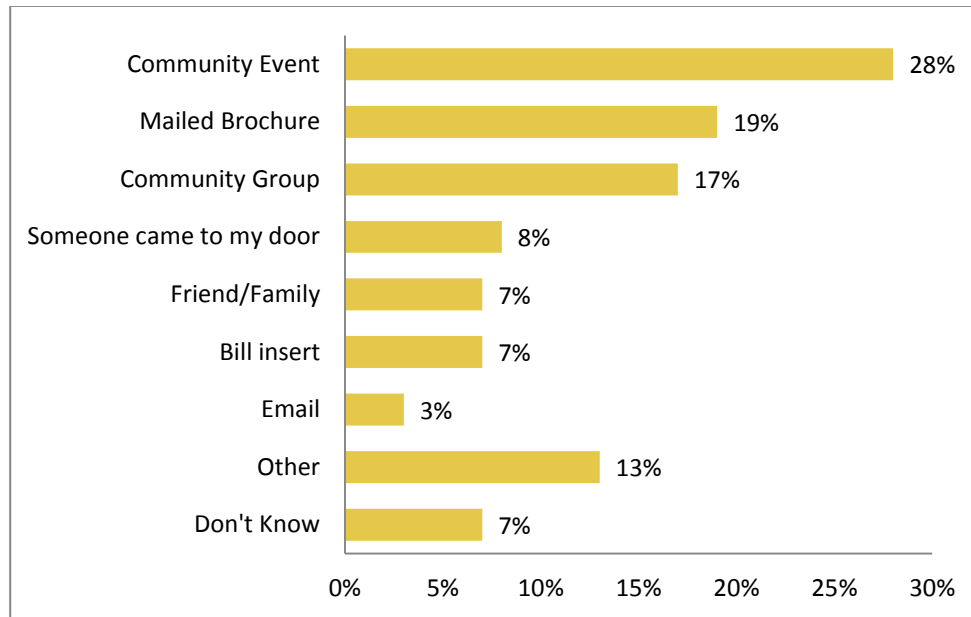
Note: n = 72
Source: Navigant analysis of survey response data

Survey respondents were asked to specify which community group they attended where they became aware of the program, and the primary community group mentioned was the Green Zone/Green Impact Zone program. Other reported sources of awareness included phone calls from KCP&L and radio/TV ads.

Participants who still had the MySmart Display in their homes when surveyed in 2012, and had looked at the information provided on the display at least one time (72 participants), demonstrated a significant interest in wanting to manage their electricity usage and bills. When asked why they requested a MySmart Display for their home, the majority of participants (65 percent) reported that they wanted better control over their electricity usage. Figure 31 shows the participants reported reasons for requesting the displays.

Figure 31. Participant Reasons for Requesting a MySmart Display
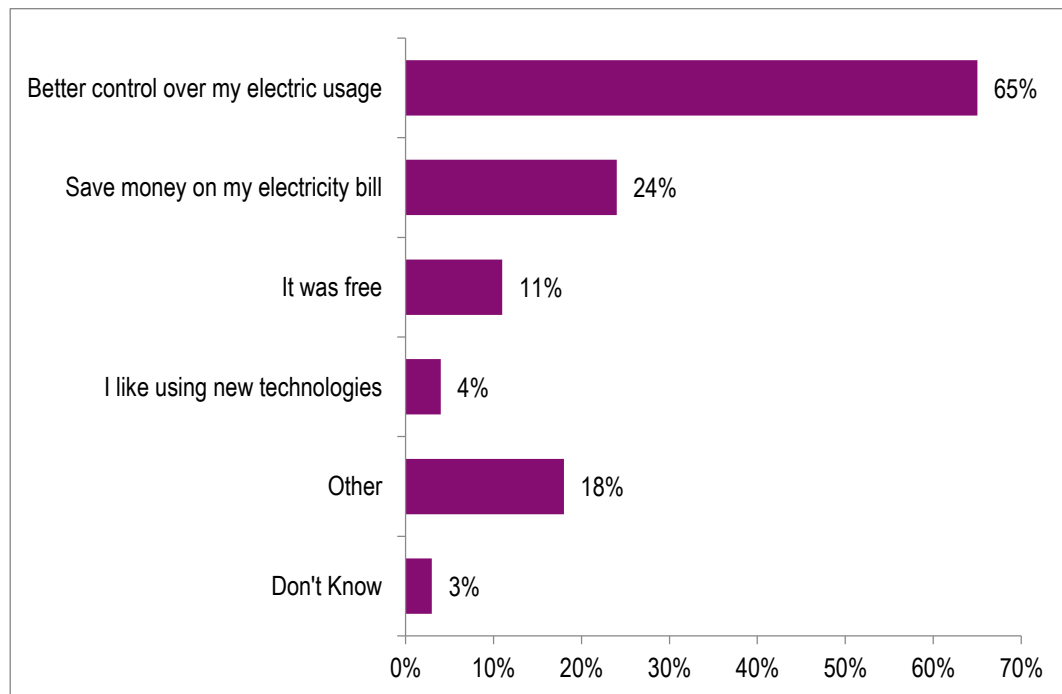
Note: n = 72; The 'other' response included "wanted to track electric usage/estimate bill."
Source: Navigant analysis of survey response data

Nearly 70 percent of MySmart Display survey respondents reported that they expected to save money by using their MySmart Display. On average, these participants expected to save 30 dollars per month through use of the display and managing their electricity usage. Figure 32 shows the percent of participants who actually noticed a reduction in their energy bill after using the MySmart Display. For the participants who noticed a decrease in their energy bill, they reported an average 40 dollar reduction, which is higher than the expected savings.

Figure 32. Did you notice a reduction in your energy bill?
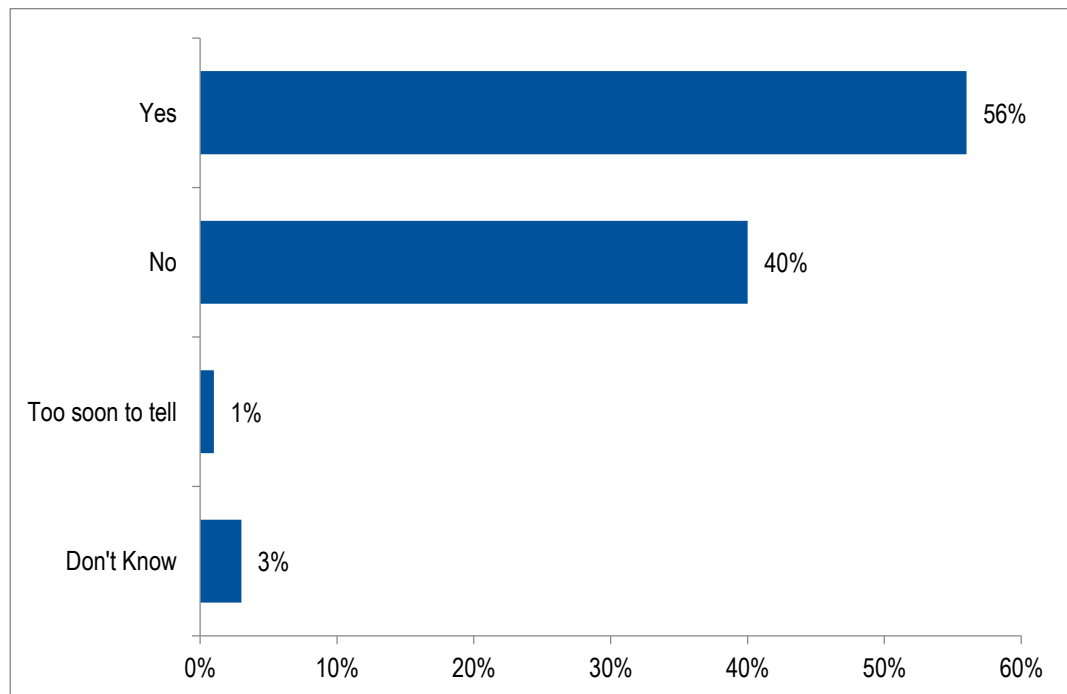
Note: n = 72
Source: Navigant analysis of survey response data

As a result of using their MySmart Displays, 53 percent of participants said they feel like they have more control over their energy use after participating in the program. Approximately one third of participants (33 percent) said they have about the same amount of control over their energy use, and only 13 percent reported that they feel like they have less control. Participants also reported a high level of comfort with using their displays. Nearly 70 percent of participants reported feeling very comfortable using their display, and more than 90 percent reported that they feel at least somewhat comfortable with their displays. This suggests that KCP&L has been successful in explaining to participants how to use their displays, although there is still opportunity for follow-up messaging, to help those 30 percent of participants move from somewhat comfortable to very comfortable with their displays. Figure 33 shows these results.

Figure 33. Participant Comfort in Using the Display
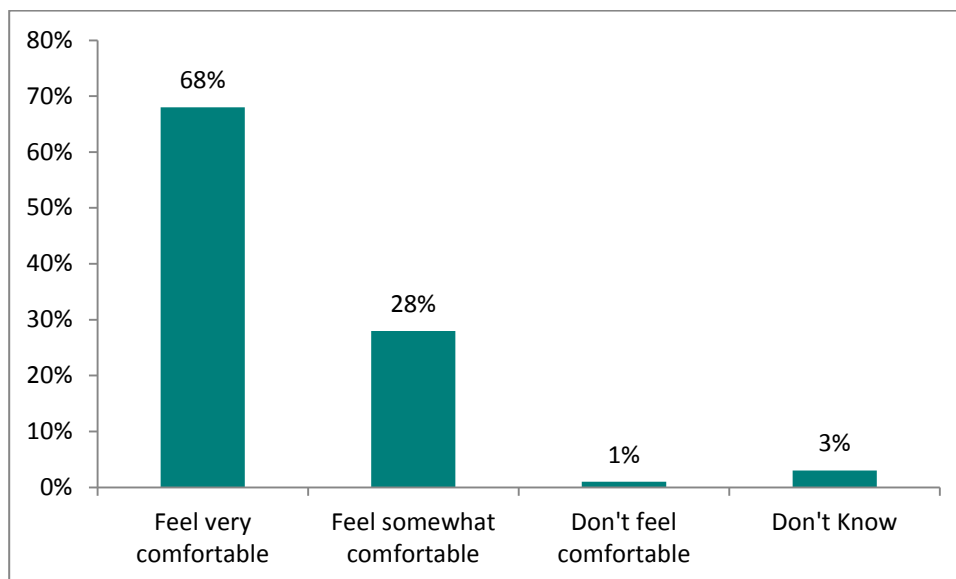
Note: n = 72
Source: Navigant analysis of survey response data

Participants were asked to rate the usefulness of the various features of the MySmart Display. These features included: daily cost and consumption, alerts, billing detail, and bill estimates. Overall, participants reported that most features were at least somewhat useful, with many features considered very useful. Figure 34 shows these results. Display alerts were ranked the lowest in usefulness, with almost 20 percent of respondents reporting that these are not very useful. Note that though the display can be used for multiple types of alerts, KCP&L had not run any demand response events at the time of this survey. Additionally, nearly 20 percent of respondents did not know enough about the alerts to give a ranking of their usefulness, which suggests that this feature could be examined for improvement.

Figure 34. Usefulness of Various Display Features
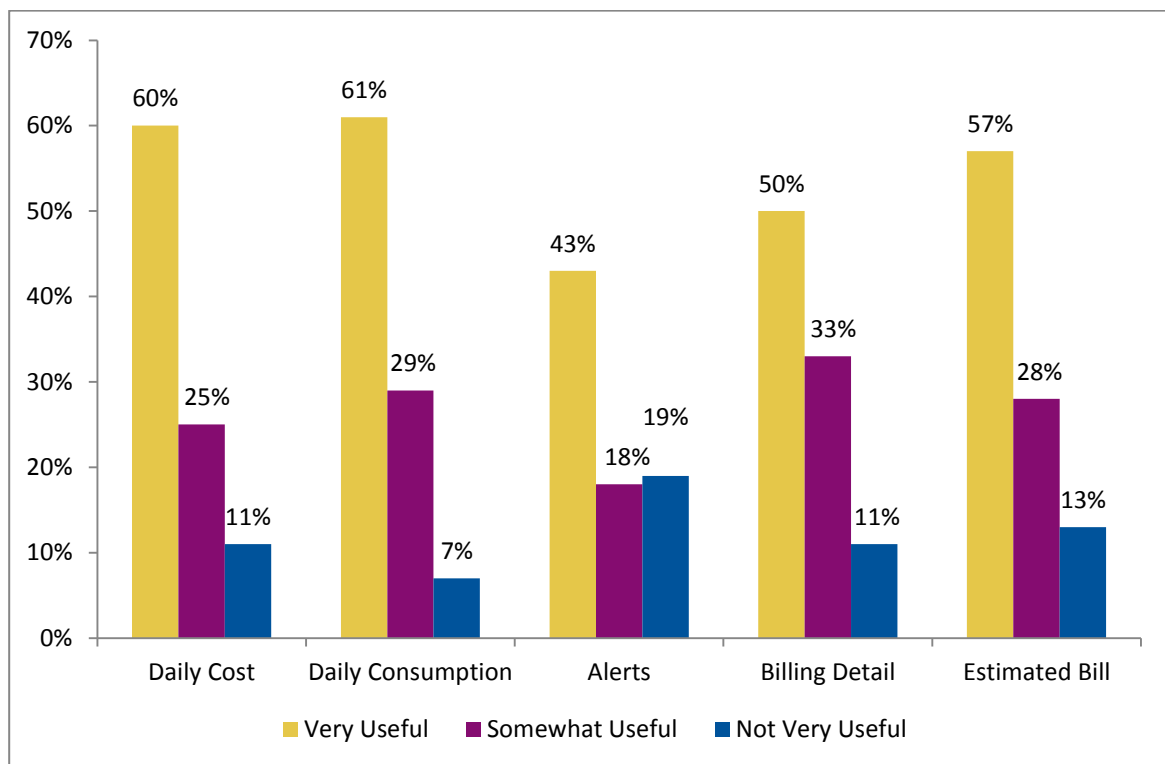
Note: n = 72; The remainder of responses are "don't know."
Source: Navigant analysis of survey response data

As shown in Figure 34, 85 percent of respondents reported that the estimated bill amount was a somewhat or very useful feature of the MySmart Display. When asked about the accuracy of the estimated bill (how closely the estimate compared with the actual bill), almost 40 percent of participants reported that the bill estimate is very accurate. The bill estimate appeared to be successful for most participants, with only 1 percent reporting that it was very inaccurate. These results are shown in Figure 35.

Figure 35. Accuracy of Display's Estimated Bill Amount
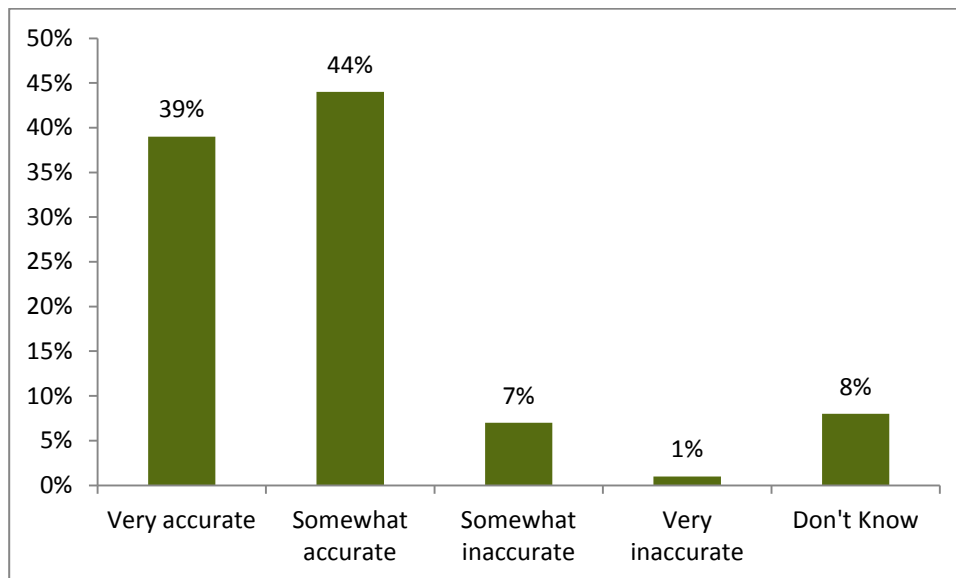
Note: n = 72
Source: Navigant analysis of survey response data

Participants expressed that when they first signed up to receive the display, the majority (83 percent) did not have any concerns about participating in the program. The very few participants who had any initial concerns reported that they worried their energy bill might increase, that the display would take too much time to learn or operate, or that there would be no benefit to participating in the program. Table 6 shows these results. The high percentage of participants without any initial concerns suggests that there are few barriers to acceptance of the program.

Table 6. Initial Program Concerns

	Number	Percent
I don't/didn't have any concerns	60	83%
It will/would requires too much time to operate	2	3%
My utility bill will/would go up	2	3%
I will/would not realize any benefits from participating	2	3%
Other, specify	6	8%
Total	**72**	

Source: Navigant analysis of survey response data

3.3   Energy Use in the Home

Most participants report at least some familiarity with energy efficiency in their homes. More than 50 percent of respondents said that they know quite a lot, if not everything, about being energy efficient in their home. Figure 36 shows these results. This suggests that understanding the importance of energy efficiency may be a key driver of program participation.

Figure 36. Knowledge of Energy Efficiency in the Home
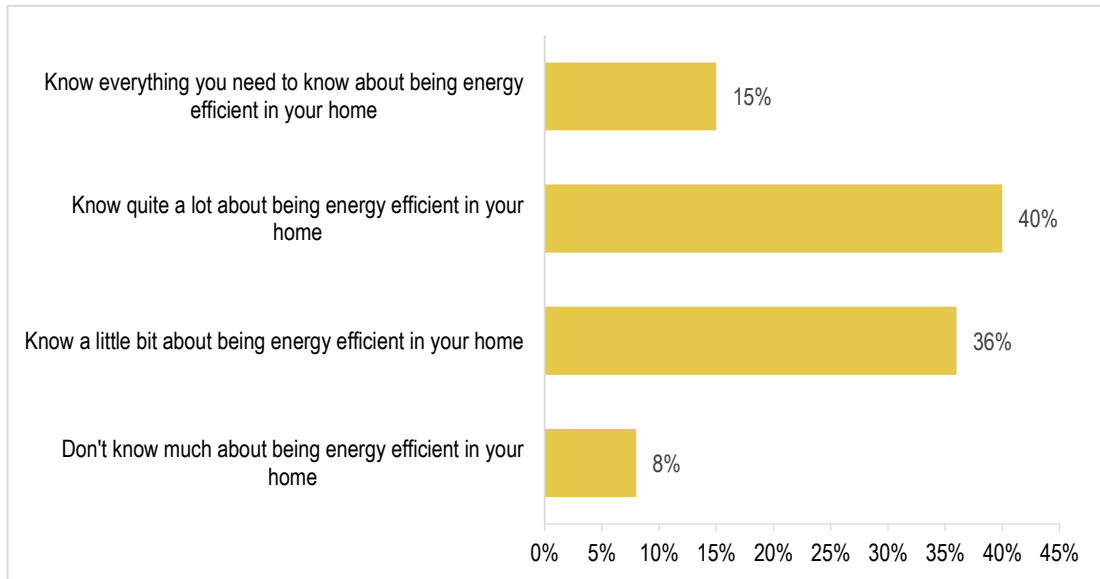
Note: n = 72
Source: Navigant analysis of survey response data

Program participants were asked if they took any additional energy-saving actions after they started using the MySmart Display. The vast majority of participants (89 percent) reported taking some additional action. Most participants (53 percent) reported that they turned off their lights to save energy, followed by unplugging chargers for phones and other devices (19 percent). These results are shown in Table 7.

Table 7. Additional Energy-Saving Actions

	Number	Percent
Turn lights off	38	53%
Unplug chargers for phones and other devices	14	19%
Had my home weatherized	10	14%
Turn TVs off	10	14%
Installed CFL bulbs	8	11%
Turn air conditioning down	7	10%
Turn computer off	4	6%
Turn air conditioning off	4	6%
Don't run electric dryer	4	6%
Installed new windows	3	4%
Turn air conditioning down when I leave home	3	4%
Installed programmable thermostat	2	3%
Upgraded to energy-efficient windows	2	3%
Other	4	6%
None	8	11%
Don't know	1	1%
Total	**72**	

Note: Other responses include: using fireplace for heat, encouraging household members to be energy conscious, used fewer bulbs in light fixtures, and shut down or used sleep electronics when not in use.
Source: Navigant analysis of survey response data

None of the participants surveyed reported that they were on KCP&L's TOU rate plan at the time of the survey. Nearly 30 percent of respondents reported that they had access to the online MySmart portal. Of those respondents, fewer than half reported that they logged into the portal at least one time in the month before the survey. Figure 37 shows these results.

Figure 37. How many times did you look at the MySmart Portal in the last month? (MySmart Display participants)
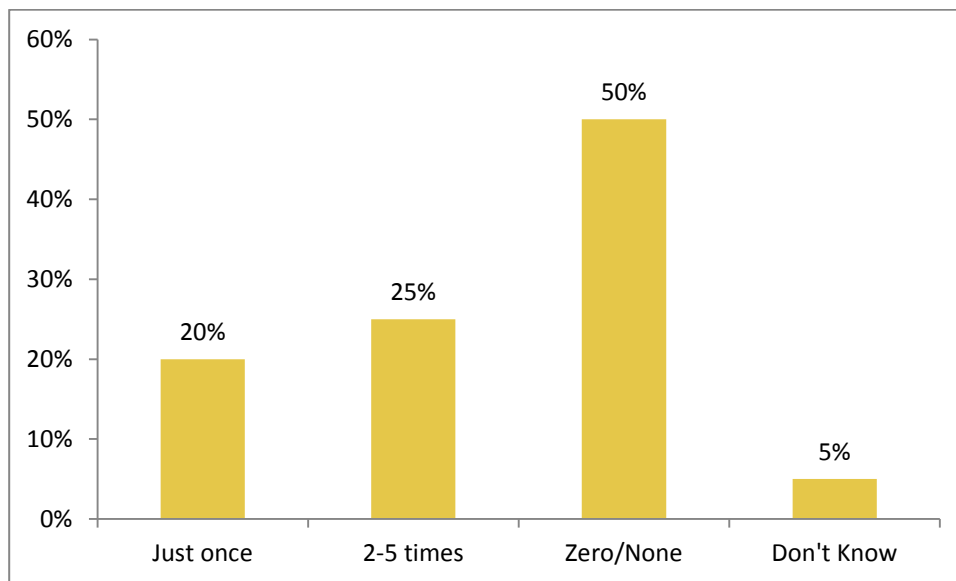
Note: n = 20
Source: Navigant analysis of survey response data

Of the 20 respondents who reported having access to the MySmart Portal, four reported having used it to pay or manage their bill, and 12 reported using it to look at their energy usage. As with the various features of the display, participants were again asked to rate the usefulness of each feature of the MySmart Portal. While reporting a high usefulness rating for the portal in general, one feature in particular seemed more difficult to understand: the energy expert feature. Thirty-eight percent of respondents were unfamiliar with this feature. Figure 38 shows the usefulness rating of each of the six features, and the MySmart Portal overall.

Figure 38. How useful do you find the following components of the MySmart Portal?
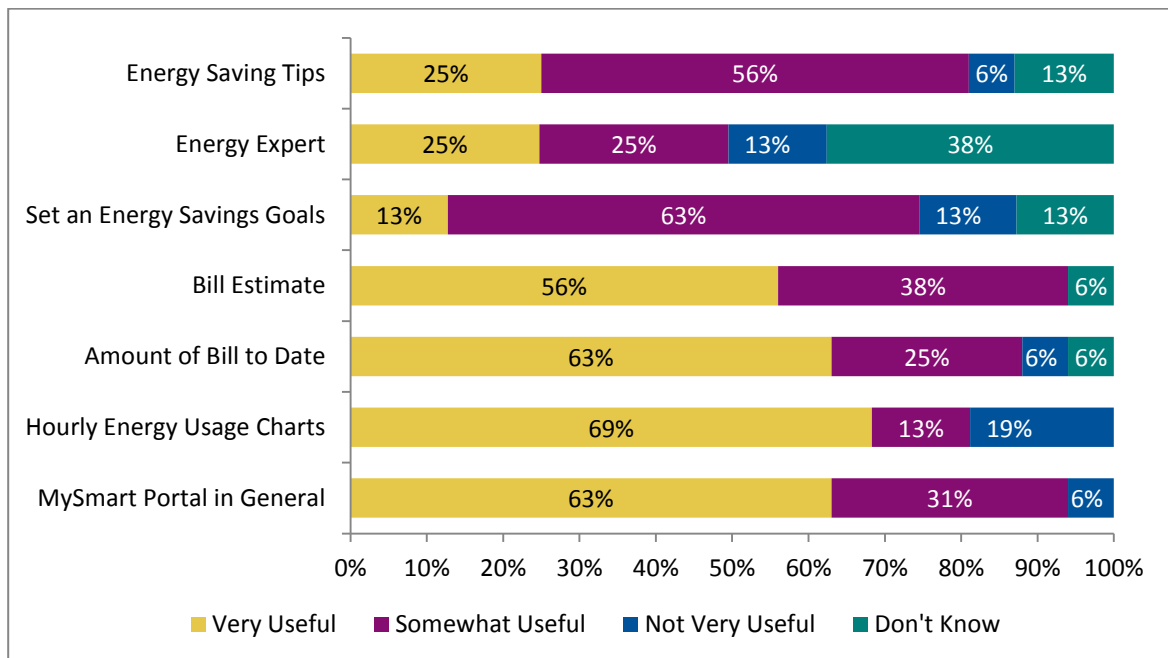
Note: n = 16
Source: Navigant analysis of survey response data

3.4   *Satisfaction*

The participants in the program were very satisfied with their MySmart Displays. More than 50 percent of participants reported that they were completely satisfied with the displays, with an additional 36 percent reporting that they were somewhat satisfied. Only 2 percent of respondents reported that they were dissatisfied at all. The distribution of participant satisfaction is shown in Figure 39.

Figure 39. Participant Satisfaction with MySmart Display
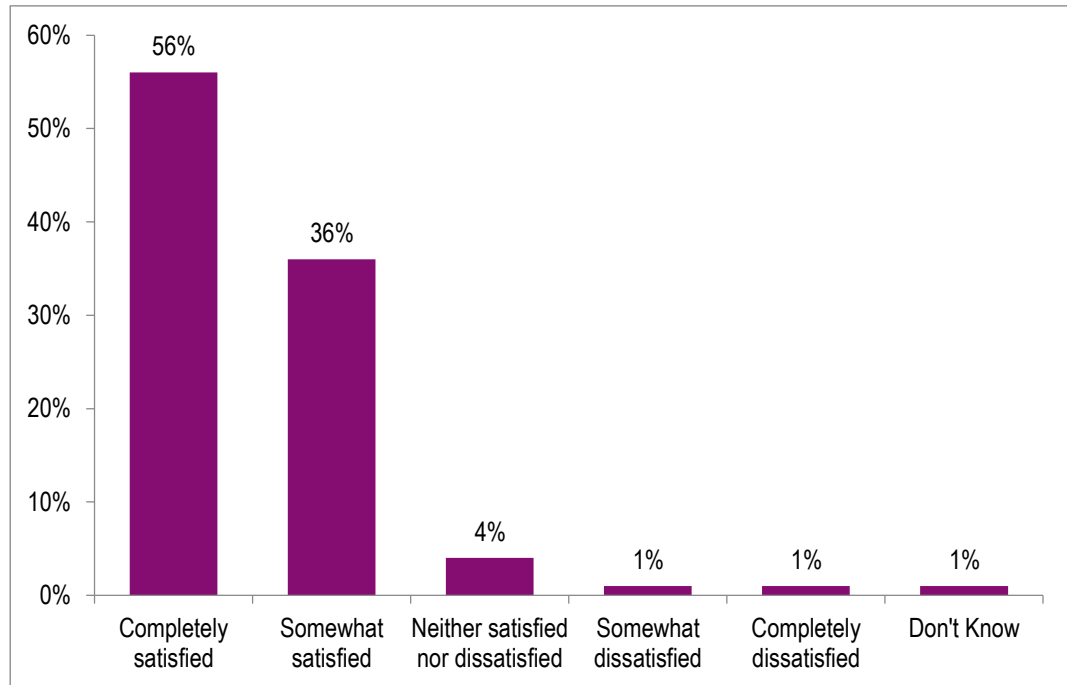
Note: n = 72
Source: Navigant analysis of survey response data

Of those MySmart Display participants who also used the MySmart Portal, satisfaction ratings were similarly high. More than 50 percent of these respondents reported being completely satisfied with the MySmart Portal, and almost 40 percent were somewhat satisfied. None of the respondents who use the portal reported any dissatisfaction with the portal. Table 8 shows the satisfaction ratings of the MySmart Portal.

Table 8. Satisfaction with MySmart Portal

	Number	Percent
Neither satisfied nor dissatisfied	1	6%
Somewhat satisfied	6	38%
Completely satisfied	9	56%
Total	**16**	

Source: Navigant analysis of survey response data

As a result of participating in the program, participant satisfaction with KCP&L primarily increased. Forty-seven percent of participants reported that they are more satisfied with KCP&L after using the MySmart Display, while 46 percent reported that they are as satisfied with KCP&L as they were before using the display. Figure 40 shows these results.

Figure 40. How did your satisfaction with KCP&L change after participating in the program?
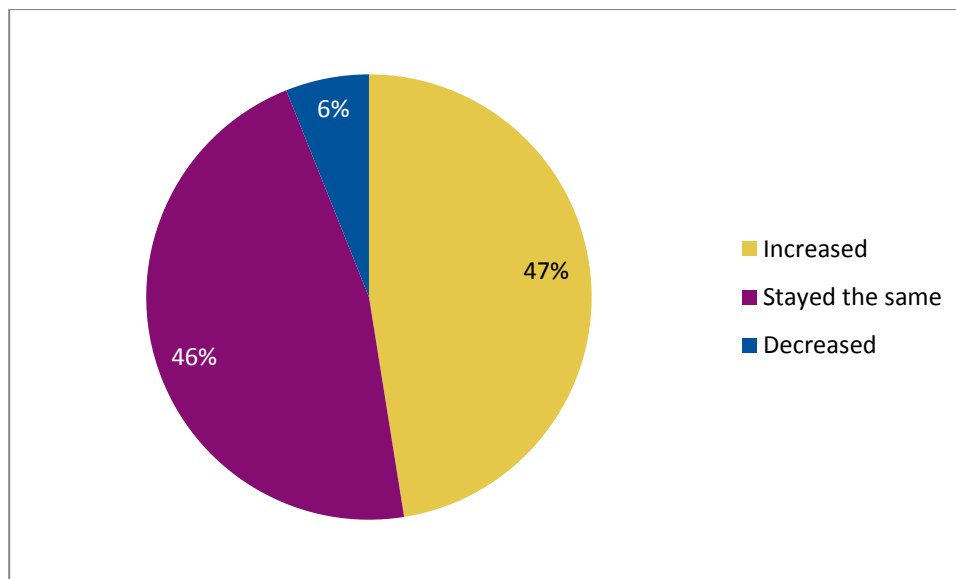
Note: n = 72
Source: Navigant analysis of survey response data

Based on their experience with the program at the time of the survey in 2012, the MySmart Display participants were asked to rate their satisfaction with KCP&L overall. As shown in Figure 41, more than 90 percent of participants reported being at least somewhat satisfied with the utility, and more than 50 percent reported being completely satisfied.

Figure 41. Satisfaction with KCP&L
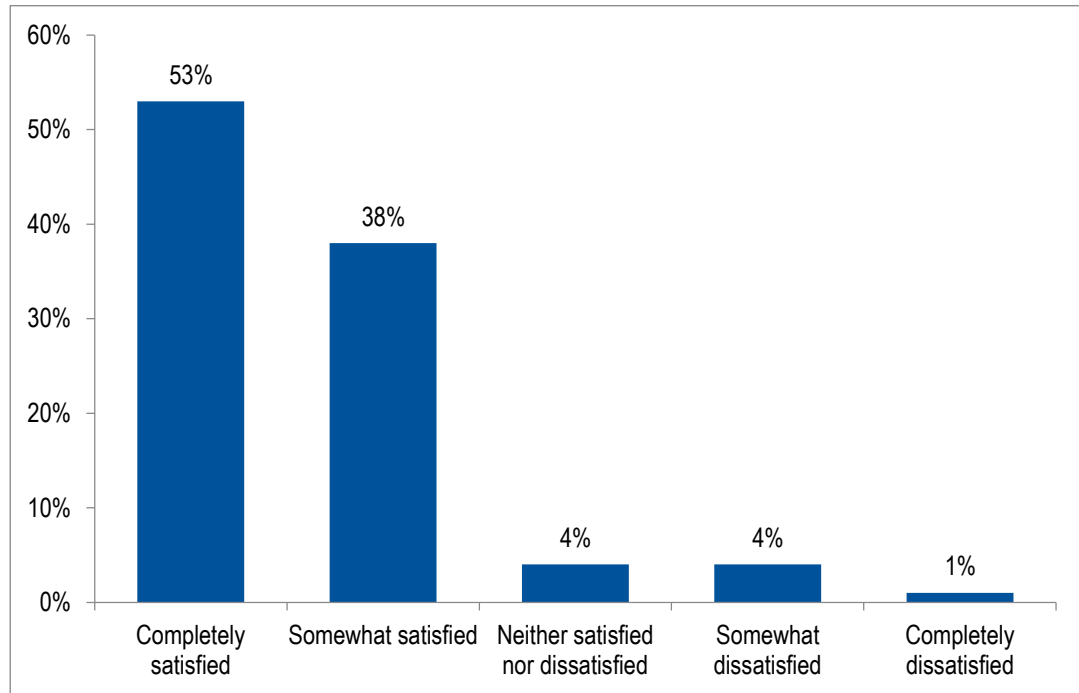
Note: n = 72
Source: Navigant analysis of survey response data

3.5   Demographics

Table 9 provides key MySmart Display survey respondent demographics for the 72 participants who completed the survey. Where possible, the survey respondent demographics are compared to those of the SGDP territory and the GIZ. The surveyed population are generally older than the average population in the SGDP territory and the GIZ. Nearly 80 percent of the survey population are above 40 years old, while only 37-38 percent of the actual population is in that age bracket.

Table 9. Survey Participant Demographics

	Survey Participant		SGDP	GIZ
	Number	Percent	Percent	Percent
Gender				
Male	36	50%	-	-
Female	36	50%	-	-
Age				
< 30 Years Old	8	11%	37%	43%*
30-39	6	8%	25%	20%
40-64	36	50%	24%	22%
65 or Older	21	29%	14%	15%
Refused	1	1%		
Highest Level of Education				
Elementary (Grades 1-8)	1	1%	-	-
Some High School (Grades 9-12)	5	7%	-	-
High School Graduate	19	26%	24%	34%
Some College/Trade/Vocational School	16	22%	-	-
College Graduate	18	25%	-	-
Postgraduate	12	17%	-	-

Note: n = 72
Source: Navigant analysis of survey response data

Table 10 provides key household demographics for the surveyed participants. Survey respondents are primarily homeowners, which does not reflect the actual population in the GIZ. While only 21 percent of survey respondents are renters, this demographic makes up more than 50 percent of the GIZ.

Table 10. Survey Participant Household Information

	Survey Participant		SGDP	GIZ
	Number	Percent	Percent	Number
Homeownership				
Own	55	76%	-	46%
Rent	15	21%	-	54%
Household Type				
Single-family home	61	85%	-	-
Single-family attached (townhouse)	1	1%	-	-
Multi-family home (apartment/duplex/condo)	9	13%	-	-
Refused	1	1%	-	-

Note: n = 72
Source: Navigant analysis of survey response data

4   MySmart Thermostat and Home Area Network

The MySmart Thermostat (Tstat) allows customers to pre-set temperatures for nighttime or when they are away from home, and to set it to automatically return to their preferred temperature before they wake up or return home. The MySmart Thermostat can also be integrated with the HAN, a collection of in-home energy devices networked together.

This section presents the findings from a phone survey of Tstat and HAN participants, which was conducted in fall 2014. For this survey, the evaluation team contacted 94 customers who had received at least one of several demand response event alerts through the MySmart Thermostat. Navigant offered each participant a $25 Visa gift card in exchange for a completed survey. In total, 34 respondents completed the survey. All of these respondents had a MySmart Thermostat installed in their home, and seven also had HAN devices.

The evaluation team found that, overall, the Tstat/HAN survey respondents were very familiar with the SGDP, though not as familiar as the respondents from the TOU survey. Tstat/HAN survey respondents reported that they learned about the opportunity to participate in the program primarily by receiving information through the mail (65%, n = 34), and said that their primary motivator to participate was to save money on their energy bills. Overall, Tstat/HAN survey respondents expressed satisfaction with the MySmart Thermostat and felt that the device was easy to use and saved them money on their monthly bill, though not everyone shared these sentiments. Half of the survey respondents reported that their satisfaction with KCP&L increased since they first signed up for the Tstat/HAN program.

When asked if they could recall any of the 8.5 demand response events, only 10 of the 32 respondents who participated in an event could recall one taking place. [4] Of those ten, the most common actions taken during a demand response event include postponing running the dishwasher, turning off additional lights, and postponing running the clothes washer. For the seven respondents who at one point opted out of participating in an event, most reported not knowing why or how they opted out.

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[4] The "half" demand event was conducted only with HAN participants.

4.1   *Program Experience*

The majority of Tstat/HAN survey respondents reported that they were familiar with the overall SGDP, with 65 percent rating their familiarity with the pilot program at a four or higher, on a scale from one to five, with five being "extremely familiar" (n = 34). While overall familiarity with the SGDP among these survey respondents was relatively high, 18 percent of respondents rated their familiarity at a two or below, indicating minor or no familiarity with the program. Figure 42 provides a summary of all responses to this question.

Figure 42. How would you rate your familiarity with KCP&L's SmartGrid program (MySmart Tstat/HAN participants)?
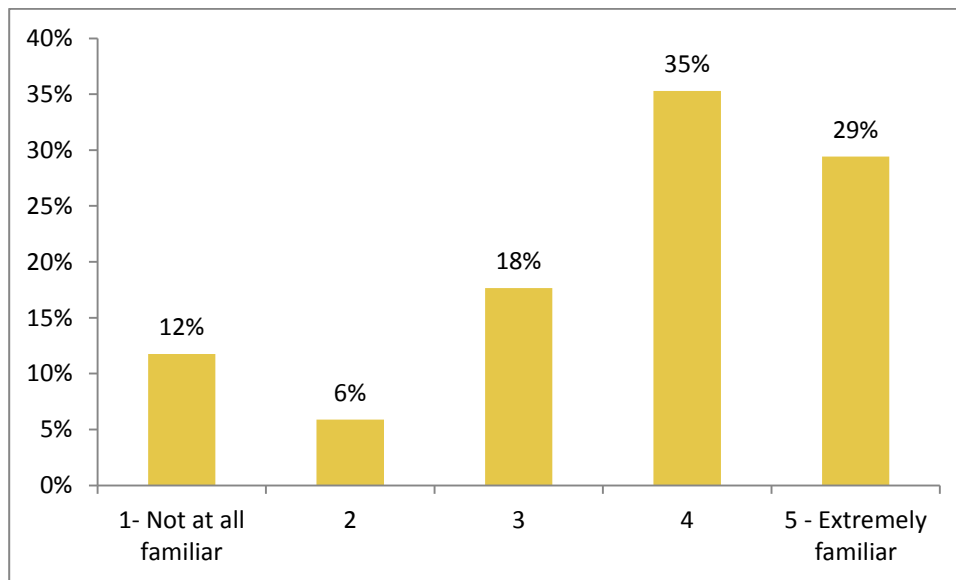
Note: n = 34
Source: Navigant analysis of survey response data

The Tstat/HAN survey respondents ranked saving money as their main motivation to sign up for the program; a desire to assist KCP&L avoid power outages or avoid having to build new power generation were minor motivation. The evaluation team asked respondents to indicate their primary reason for signing up for the program out of a list of four options: to save money, to help the environment, to help KCP&L avoid power outages, or to help KCP&L avoid having to build a new power plant. Seventy-four percent of respondents reported that saving money was their primary reason for signing up for the program; 21 percent said their primary reason was to help save the environment (n = 34). When asked to share their secondary reason for signing up for the program, 41 percent mentioned helping to save the environment, while 26 percent mentioned helping KCP&L avoid power outages (n = 34). Only one respondent said that helping KCP&L avoid building new power plants was a motivation. One respondent indicated that they signed up because of the convenience of the program. Figure 43 shows a summary of all responses for both primary and secondary reasons for signing up for the program.

Figure 43. What is the main reason you signed up for the program (Tstat/HAN participants)?
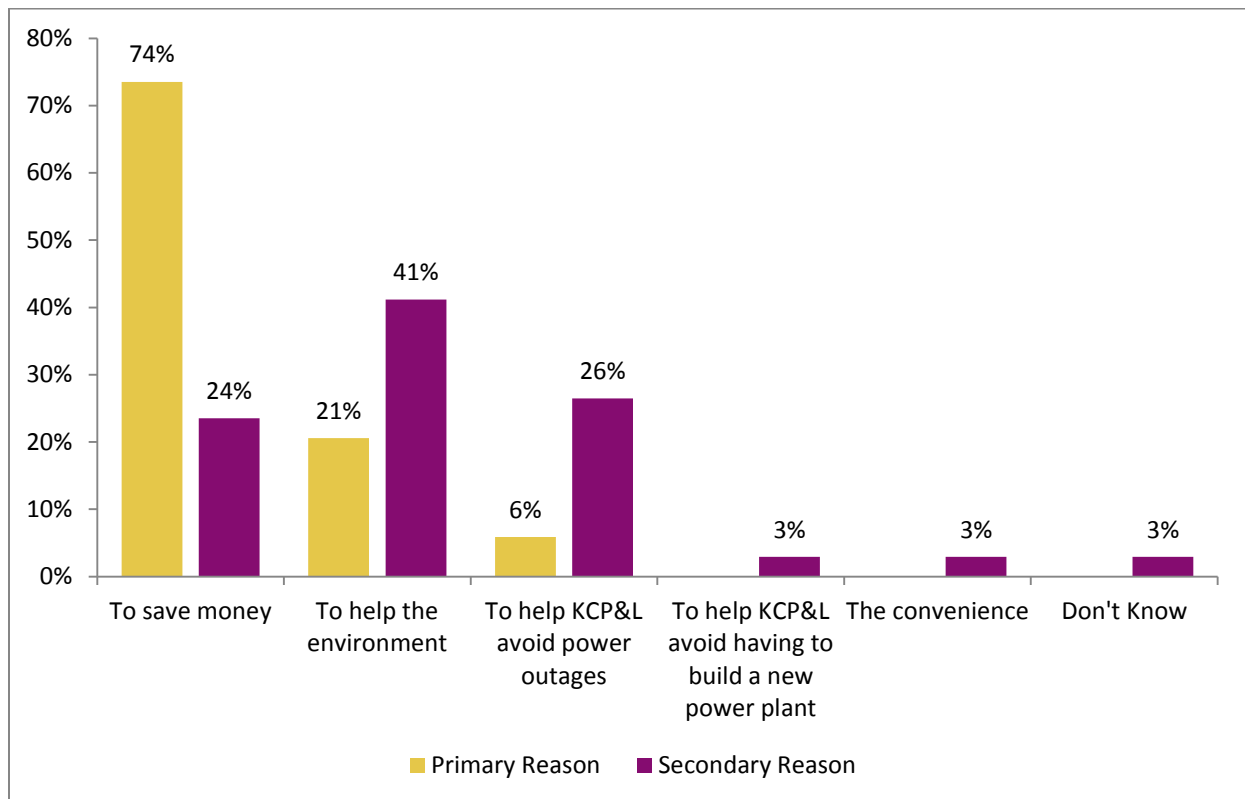
Note: n = 34

Source: Navigant analysis of survey response data

Respondents reported that receiving material in the mail was the primary method of learning about the opportunity to participate in the Tstat/HAN component of the SGDP program. Through interviews with key program staff, the evaluation team learned that going door to door was a primary strategy in recruiting customers to the program; however, only 18 percent of Tstat/HAN survey respondents reported learning about the program by that method. The majority (65%, n = 34) stated that they learned about the opportunity through material received in the mail. Figure 44 shows the responses to this question.

Figure 44. How did you learn about the program (Tstat/HAN participants)?
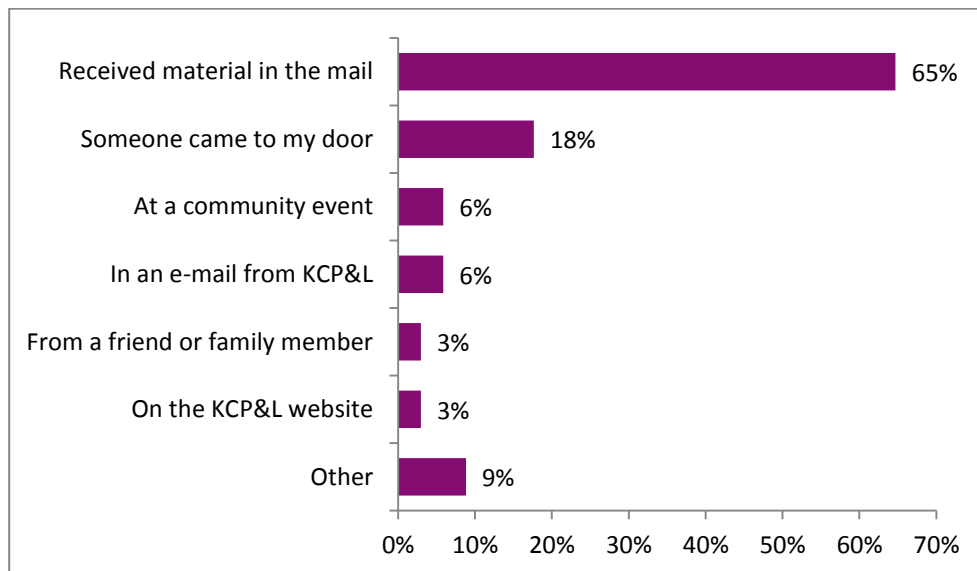
Note: n = 34 and multiple responses accepted; The respondent who replied "other" provided no elaboration on how they learned about the program.
Source: Navigant analysis of survey response data

As with the other SGDP components, Tstat/HAN participants also had access to the MySmart Portal. The evaluation team asked Tstat/HAN survey respondents whether they had ever visited the portal and the majority, 59 percent, indicated that they had never visited. This indicates that most participants did not connect the Tstat/HAN components to the broader program and therefore were unable to take advantage of the SGDP system as a whole.

4.2   Events

KCP&L called a total of 8.5 demand response events during the SGDP.[5] Each of these events was communicated to participants via their MySmart Thermostats. According to the program tracking database, as provided by KCP&L, all but two Tstat/HAN survey respondents participated in at least one event. Despite this, only 31 percent of respondents could recall one or more events (n = 32; see Figure 45). This indicates that the majority of program participants were not engaging with the program as intended, meaning they were not aware of or responding to the event alerts they received via the Tstat.

Figure 45. At certain times throughout this past summer and early fall, you received demand response event alerts through your MySmart Thermostat. Do you recall any of these events?
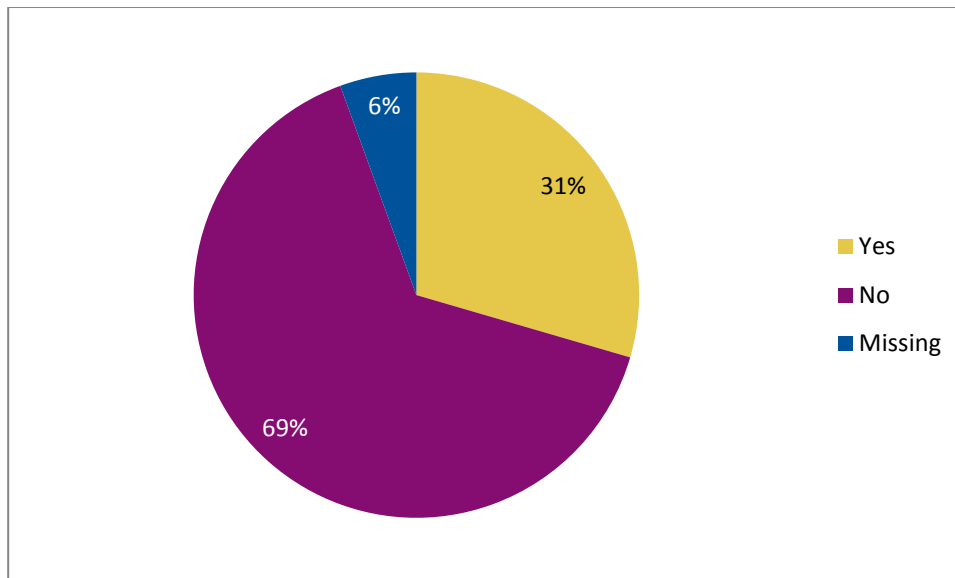
Note: n = 32
Source: Navigant analysis of survey response data

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[5] The "half" demand event was conducted only with HAN participants.

Of the ten respondents who could recall a demand response event, the most commonly reported energy-saving actions taken during an event include: postponing running the dishwasher until after the event, turning off additional lights during the event, and postponing running the clothes washer until after the event. The least commonly reported actions included: air-drying or line-drying clothing, using fans instead of air conditioning, and turning of air conditioning for all or part of the event. Figure 46 provides a summary of all responses given, with respondents reporting whether they always, sometimes, or never engaged in a particular action during an event. The evaluation team also asked survey respondents if they took any other actions beyond those already mentioned, and six indicated that they did not do anything else during demand response events. Three respondents indicated that they made general adjustments to their air conditioning systems, while one respondent indicated that they attempted to unplug their computer any time an event was called.

Figure 46. How often did you take certain actions during a demand response event?

Action	Always	Sometimes	Never
Postpone running dishwasher until after the event	60%	10%	30%
Turn off additional lights during the event	60%	30%	10%
Postpone running clothes washer until after the event	50%	30%	20%
Set AC to higher temperature during the event	40%	20%	40%
Unplug electronics/appliances when not in use	40%	10%	50%
Postpone running clothes dryer until after the event	40%	20%	40%
Cook before or after the event	30%	50%	20%
Turn AC off for all or part of the event	20%	50%	30%
Use fans isntead of AC during the event	10%	60%	30%
Air-dry or line-dry clothes during the event	10%	20%	70%

Note: N = 10
Source: Navigant analysis of survey response data

Of the seven respondents who at one point opted out of a demand response event (according to the program tracking database), the majority could not recall why they opted out or reported that there was no reason for it (57%, n = 7). Two respondents specifically referenced their hectic job schedule as a reason for opting out, though they did not elaborate on how this directly related to their choice to opt out of the

event. One participant reported that, due to allergies, there are certain times when conditioned air is needed and therefore they had to opt out during the event. Four of these seven respondents could not recall how they opted out of the event, while two indicated that they did so using the MySmart Thermostat and one reported that they called KCP&L directly.

4.3   Satisfaction

Overall, respondents reported high levels of satisfaction with KCP&L as a company and with the Tstat/HAN components of the SGDP. Sixty-five percent of respondents rated their satisfaction with KCP&L at a four or higher and 67 percent of respondents rated their satisfaction with the MySmart Thermostat at a four or higher. Only one respondent indicated that they were "extremely dissatisfied" with the MySmart Thermostat. The evaluation team also asked respondents to rate their satisfaction with the MySmart HAN devices and with the MySmart Portal, though Navigant asked only respondents who indicated familiarity with these program features to provide a rating. Figure 47 shows that these respondents were also satisfied with these program features.

Figure 47. Satisfaction with KCP&L and SGDP Program Components
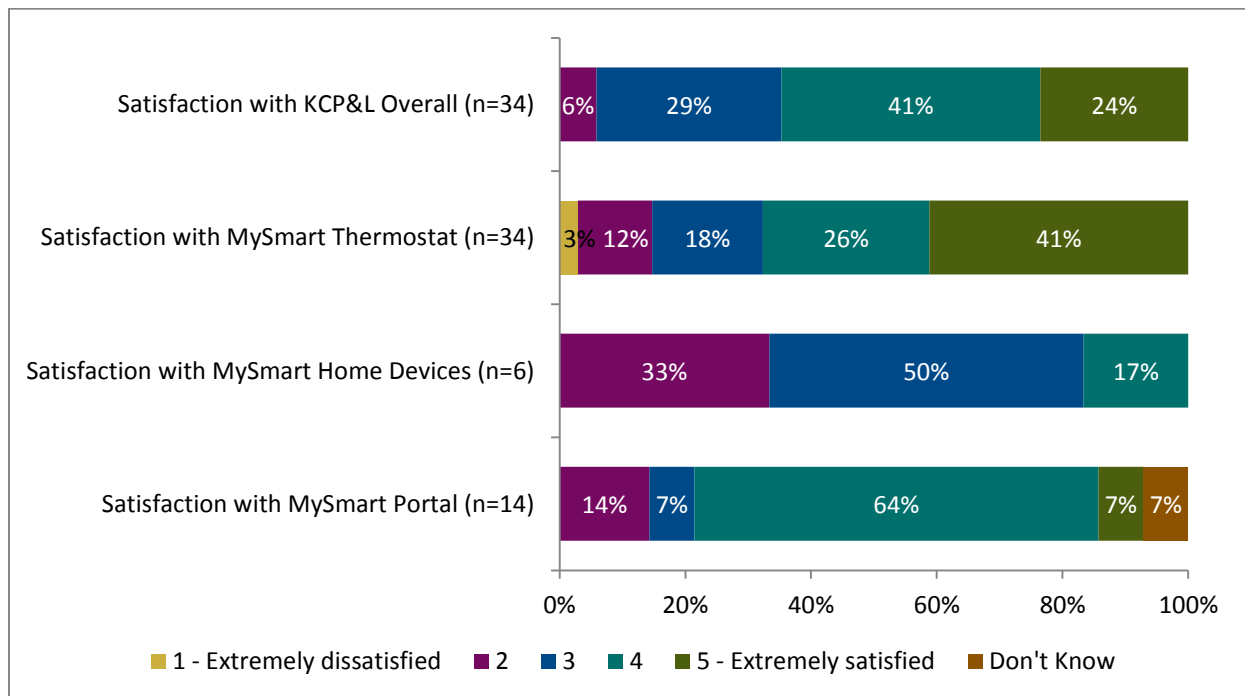
Source: Navigant analysis of survey response data

The evaluation team asked respondents to provide the reasons behind the satisfaction rating they gave for each category. For those who expressed satisfaction with KCP&L, interpreted as a rating of a 4 or higher, ten respondents indicated that they feel that KCP&L is a good company overall and they are generally satisfied. As stated by one respondent who rated their satisfaction at a 4, "The programs they offer are good for the environment, and I'm happy with their investment in the community." Three of these respondents mentioned that KCP&L has good customer service, while another three indicated that they are pleased with KCP&L's efforts to save them money.

Respondents provided many different reasons in regards to dissatisfaction with KCP&L overall, regardless of the rating they provided. Six respondents indicated that they feel as though their bill is too high, with another respondent indicating a desire for a more competitive market so that there would be options for energy services. Two respondents indicated that they would like to see more training offered in regards to using the MySmart Thermostat, and one respondent felt that the SGDP could have been advertised more in general. Other individual comments included a report of poor customer service, a distrust of the accuracy of the neighbor-to-neighbor comparison conducted by KCP&L, a dislike that KCP&L controls the MySmart Thermostat, a desire for more conservation-oriented programs, and a customer who recently experienced a number of KCP&L trucks in their backyard without explanation.

Regarding the MySmart Thermostat, the majority of respondents (71%, n = 34) had positive comments to share in regard to their satisfaction with the device. Nine respondents mentioned that they liked having the option of programming the thermostat, and that overall the device was easy to understand and use. Eight respondents mentioned the money they saved on their monthly bill, while another seven respondents simply made general statements of satisfaction. As summarized by one respondent who rated the device at a five, "It was so easy to use, and the installation was really fast and efficient." Although many respondents found the MySmart Thermostat easy to use, five respondents also stated that they did not think the device was user friendly, while three respondents expressed dissatisfaction with their inability to control the thermostat. Two individual complaints include one respondent who felt that they did not see any money savings from the MySmart Thermostat, and one respondent who did not feel that they had been properly trained to use it.

For the MySmart HAN devices, only six respondents (of seven) could recall the installation of these devices in their home, even though the program database noted them as having HAN devices. Two of these six respondents indicated that they never used the devices, and one respondent indicated that it was a good tool, but they would have liked to see more information on how to use the network. One respondent who rated their satisfaction at a two expressed frustration that they could not manually control the devices, and that they had to go through the portal to operate them. Another respondent mentioned that they experienced difficulty getting the devices to operate properly and they had to call KCP&L several times to troubleshoot the devices. The final respondent cited frequent system outages as their reason for rating their satisfaction with the HAN component at a three.

Of the 14 survey respondents who reported using the MySmart Portal, 8 shared a positive comment about their experience with the website. In general, these eight respondents felt that the portal was informative and easy to use. Two of the eight specifically mentioned the benefit of checking their household temperature online, and enjoying the graphics on the portal, respectively. Two respondents expressed dissatisfaction with the "system outages", with one respondent claiming that the MySmart Portal worked only 20 percent of the time. Another respondent indicated that the site is slow to load, and a different respondent indicated that they often forgot it was available.

To conclude the participant survey, the evaluation team asked respondents whether their satisfaction with KCP&L had increased, decreased, or stayed the same since they first began participating in the program. As shown in Figure 48, 50 percent of respondents indicated that their satisfaction had increased, while 38 percent felt that their satisfaction with KCP&L had remained the same since they first signed up (n = 34). Only nine percent felt that their dissatisfaction decreased, indicating that, overall, the program has been successful in fostering and maintaining customer satisfaction with KCP&L as a utility.

Figure 48. Since you first signed up for the SDGP program, would you say your satisfaction with KCP&L has…
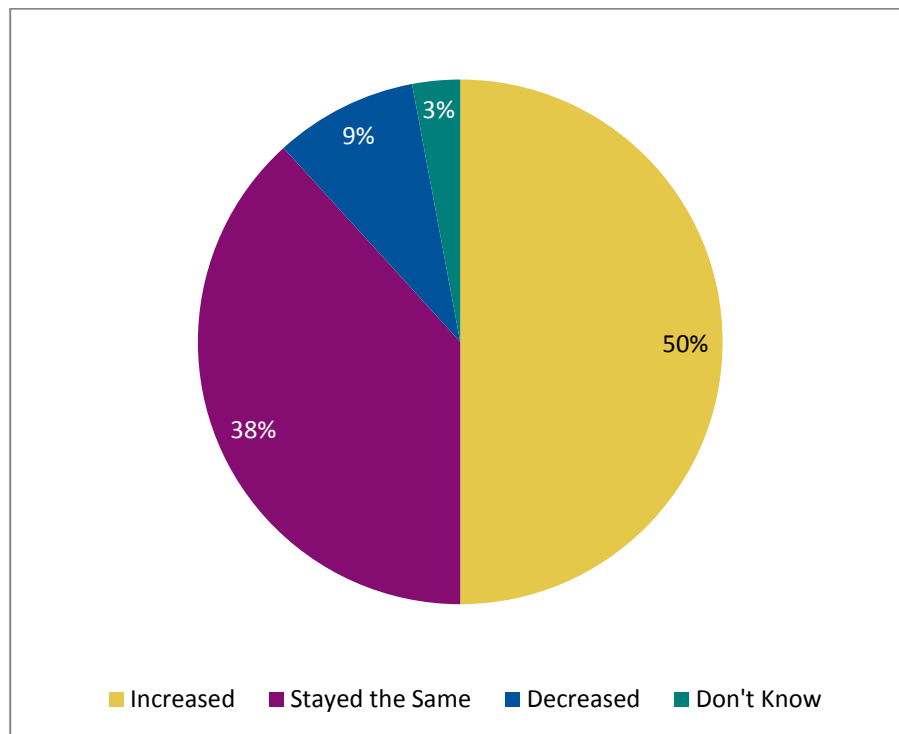
Note: n = 34
Source: Navigant analysis of survey response data

5   Time-of-Use Rates

KCP&L developed TOU residential billing rates as an option for residents in the SGDP territory. These rates can be used by participants in any of the technology options mentioned earlier. The program designates "off-peak" hours (when rates are discounted from standard) and "peak" hours (when rates are above standard). The TOU rates were designed to encourage customers to think about when they use electricity rather than just how much electricity they use, ultimately shifting electricity usage (grid load) from peak to off-peak periods.

This section presents the findings from the TOU Rate participant phone survey guide, conducted in fall 2014. The evaluation team contacted customers who had signed up for the special billing structure and asked them to complete a brief phone survey, implemented by Bellomy Research. To incentivize participation, Navigant offered each participant a $20 Visa gift card in exchange for a completed survey. In total, 47 respondents completed the survey.

The evaluation team found that, overall, respondents are very familiar with the SGDP, particularly in comparison to respondents to the MySmart Portal participant survey. Respondents learned about the opportunity to participate primarily by receiving information through the mail (62%, n = 47). Overall, respondents expressed satisfaction with the program and felt that the TOU plan is easy to understand and that KCP&L provided them with sufficient information about the program. Sixty-eight percent of respondents strongly agree that their energy bill decreased after participating in the program, and 62 percent would recommend the program to family and friends (n = 47).

When asked if their household regularly alters electricity usage in response to higher peak rates, 49 percent of respondents strongly agree that they regularly alter electricity during peak periods. The most common actions taken include setting the air conditioner to a higher temperature, postponing running the dishwasher, and unplugging electronics and appliances when not in use. The actions that people are least likely to engage in include using fans instead of air conditioning during peak hours, turning off additional lights during peak hours, and turning air conditioning off for all or part of the peak hours (see Figure 53).

5.1 Program Experience

Overall, respondents are familiar with the SGDP and associate it with the TOU program. The evaluation team asked respondents to rate their familiarity with the SGDP on a scale from one to five, where five is extremely familiar. Nearly half (45%, n = 47) of respondents ranked their familiarity with the program at a four, while 30 percent indicated that they were extremely familiar (n = 47, ranking of 5). Only one respondent indicated that they were "not at all familiar" with the SGDP, as shown by Figure 49. Respondents are much more familiar with the SGDP than respondents from the MySmart Portal participant survey, where 25 percent indicated that they were "not at all familiar". Association with the SGDP is much higher for the TOU program than with the web portal.

Figure 49. How would you rate your familiarity with KCP&L's SmartGrid program (TOU participants)?
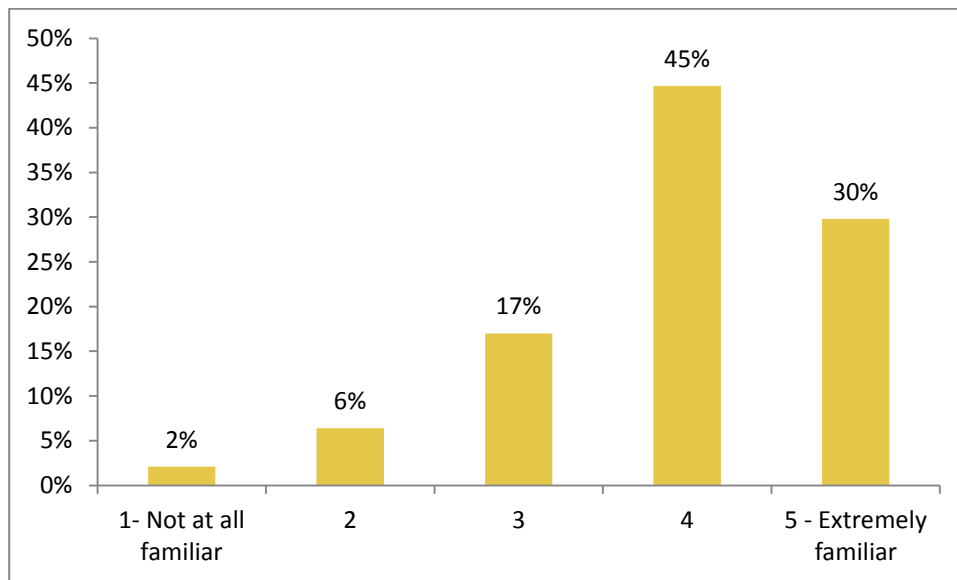
Note: n = 47
Source: Navigant analysis of survey response data

The majority of respondents learned about the opportunity to participate in the TOU program through material they received in the mail. Sixty-two percent of respondents indicated that they learned of the TOU program by receiving material in the mail, followed by 9 percent of respondents who learned of the opportunity over the phone (n = 47). Figure 50 provides a breakdown of other methods of learning about the program.

Figure 50. How did you hear about the KCP&L Time-of-Use program?

Category	Percentage
Received material in the mail	62%
Phone	9%
At a community event	4%
In an e-mail from KCP&L	4%
On the KCP&L website	4%
Someone came to my door	4%
From a community group	2%
From a friend or family member	2%
Dont know	9%
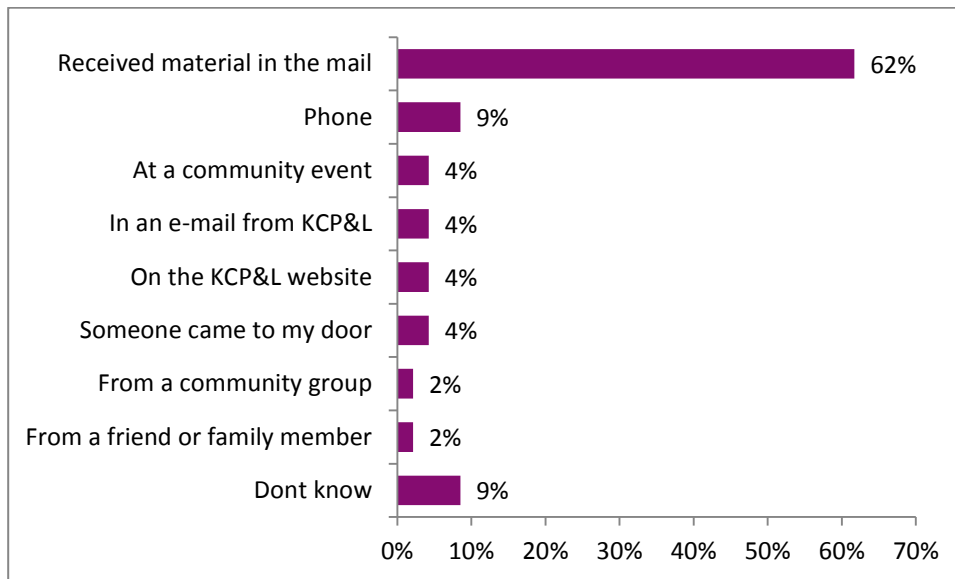
Note: n = 47
Source: Navigant analysis of survey response data

The main reason respondents had for signing up for the TOU program is to save money, followed secondarily by a desire to help the environment. The evaluation team asked respondents to choose the main reason they signed up for the program, out of a list of four options as shown in Figure 51. Seventy-four percent of respondents indicated that their primary reason for signing up was to save money, followed by 17 percent whose primary reason was to help save the environment (n = 47). Helping KCP&L to avoid building new power plants or to avoid power outages were less frequently chosen options. Figure 52 shows both the primary and secondary reasons respondents had for signing up for the program.

Figure 51. What is the main reason you signed up for the Time-of-Use program?
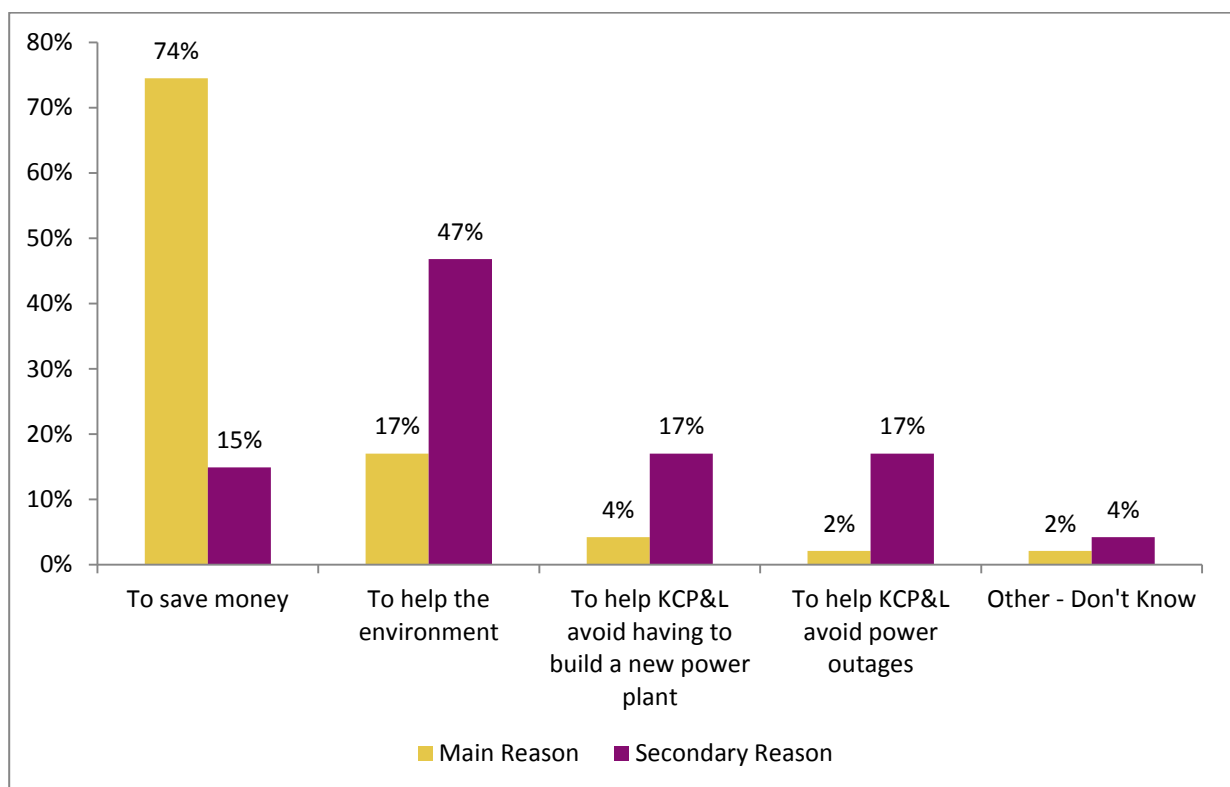
Note: n = 47
Source: Navigant analysis of survey response data

Overall, respondents agree that the TOU plan is easy to understand and that KCP&L provided sufficient information on the program. Navigant asked respondents to rate the degree to which they agreed with a series of statements, on a scale from one to five where five is "strongly agree". Figure 52 provides a summary of responses for each statement. Eighty-seven percent of respondents rate their agreement at a four or higher for the statement "The TOU rate plan is easy to understand", similarly followed by 83 percent of respondents who rate their agreement at a four or higher for the statement "KCP&L provided a sufficient amount of information to help our household adjust our electricity use in response to the higher peak rate." Respondents tended to agree slightly less with the statement "I believe that my energy bill decreased after participating in the program", with 12 percent ranking their agreement at a two or lower, and 9 percent who indicated that they did not know whether their energy bill decreased (n = 47). Sixty-eight percent of respondents indicated that they strongly agreed that they would recommend the TOU program to family and friends.

Figure 52. Please tell me how much you agree or disagree with each statement…
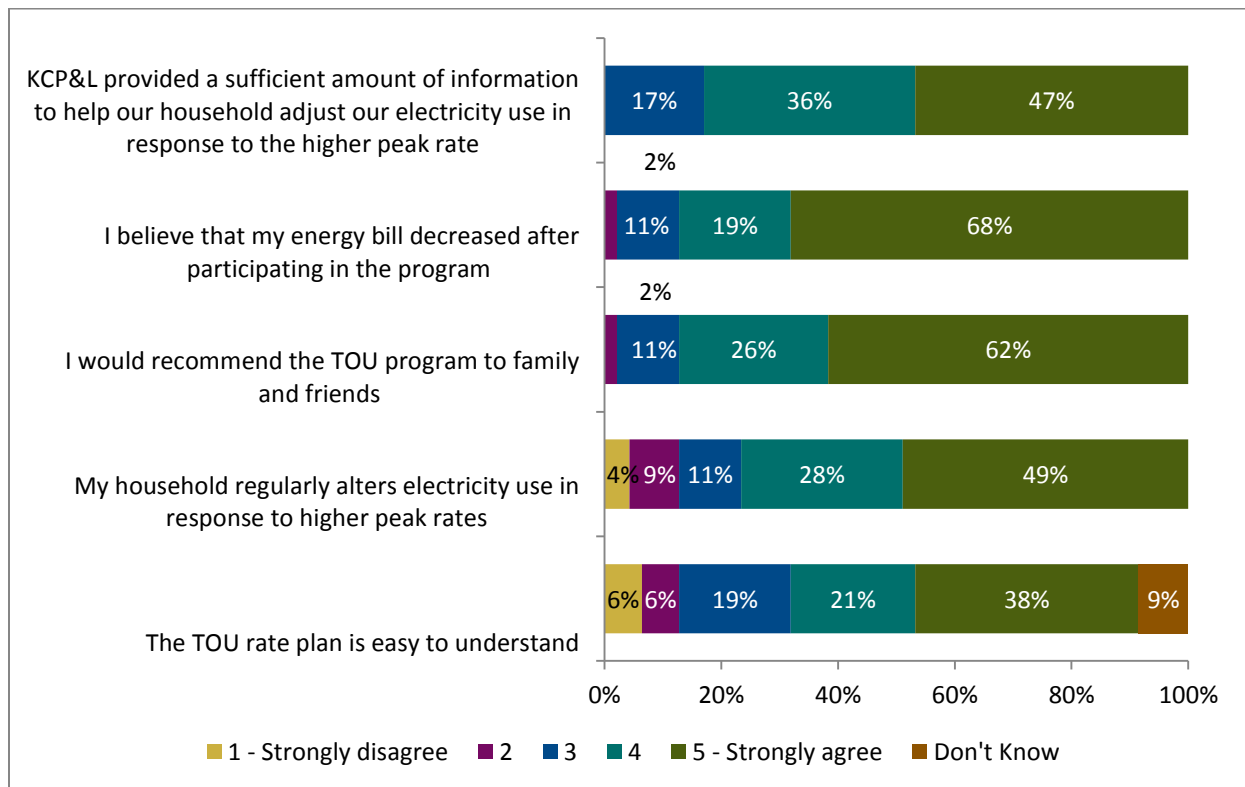
Note: n = 47
Source: Navigant analysis of survey response data

5.2 Energy Use in the Home

Survey respondents reported engaging in a number of energy-saving actions during peak rate periods, because of the peak rate. The evaluation team read respondents a randomized series of actions they might have taken during peak rate periods to save energy, and asked respondents to indicate whether they "always", "sometimes", or "never" engaged in these actions because of the peak rate. The most common action taken on a consistent basis by program respondents was using fans instead of the air conditioner during peak hours, followed by turning air conditioning off during peak hours, unplugging electronics when not in use, and turning off additional lights during peak hours (percentages shown in Figure 53). Forty-three percent of respondents indicated that they never set their air conditioner to a higher temperature during peak hours, and 34 percent indicated that they never postpone running the dishwasher until after peak hours (n = 47).

Figure 53. Please tell me whether you always, sometimes, or never do each of the following because of the peak rate.
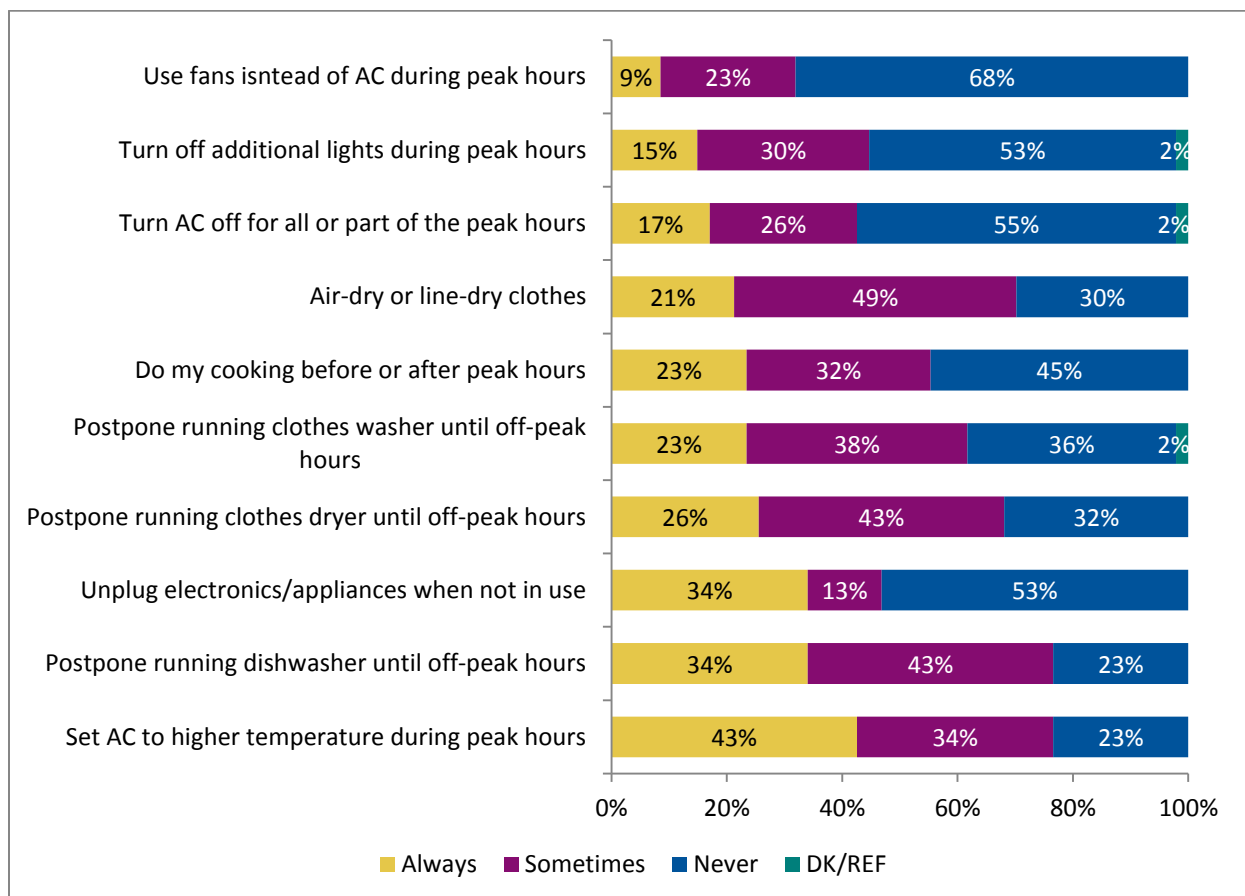
Note: n = 47
Source: Navigant analysis of survey response data

When asked if they engage in any additional energy savings activities during peak hours, half (49%, n = 47) stated that they did not engage in other actions beyond those included in the list. Six respondents indicated that they close blinds or shades, while five respondents indicated that they turn off all lights in their home during peak hours, though one respondent qualifies this by saying they only turn off all of the lights if they leave their home altogether. Figure 54 provides a summary of all responses given.

Figure 54. What other things do you do to adjust your energy use because of the peak rate that I did not mention in the list?
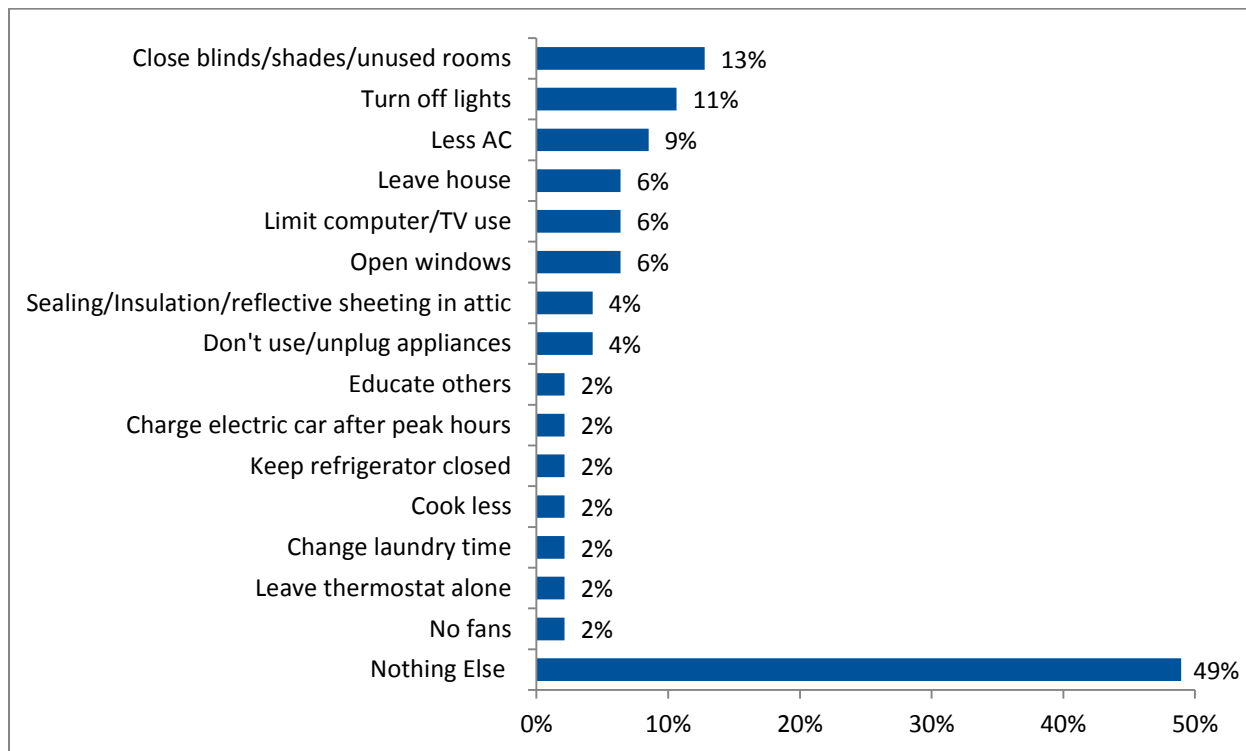
Note: n = 47
Source: Navigant analysis of survey response data

5.3 Satisfaction

Respondents are generally very satisfied with both the TOU program and KCP&L overall. Figure 55 shows that 47 percent of respondents rated their satisfaction with the TOU program as extremely satisfied and 43 percent rated their satisfaction with KCP&L overall as extremely satisfied.

Figure 55. Satisfaction with TOU Program and KCP&L
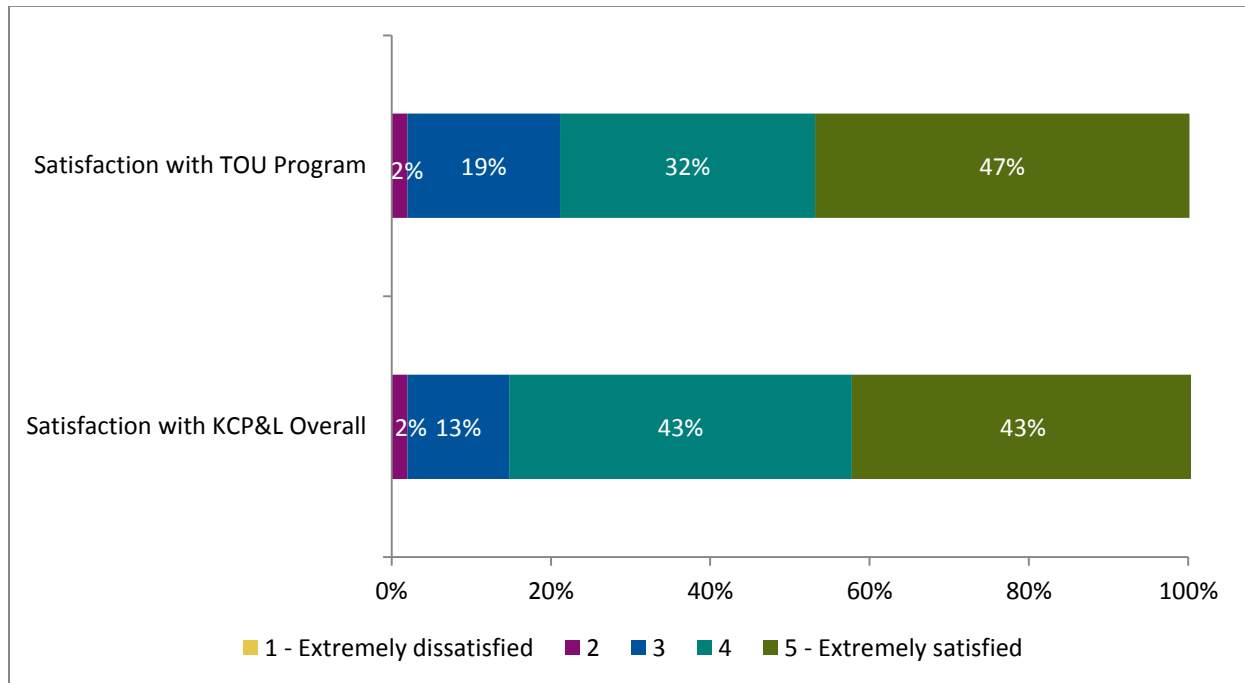
Note: n = 47
Source: Navigant analysis of survey response data

Of the respondents who rated their satisfaction at a three or lower, indicating some level dissatisfaction with KCP&L as a company overall, three mentioned that the cost of energy is too high. Others comments include that utilities governed by state commissions are not competitive enough, KCP&L provides poor customer service, and the customer wants more information on alternative forms of energy such as solar and wind generation. One respondent mentioned an experience where KCP&L hired subcontractors to trim trees near a power line, and that the job was not completed properly and that more foliage was removed than was necessary.

Among the 40 respondents who expressed satisfaction with KCP&L as a company overall (rating of four or higher), 47 percent mentioned KCP&L's good customer service as the reason behind their rating. Six of these respondents mentioned that KCP&L is a fair company in terms of the prices they charge, and seven respondents indicated that they view KCP&L as an environmentally conscious company, referencing the programs offered by KCP&L to save energy and assist home and businesses owners in reducing their consumption.

In general, eight respondents mentioned that the peak rate time period was unreasonable. When asked to expand on this, these respondents indicated that during summer months it is not possible to leave the air conditioner off so late in the evening. In addition, seven respondents suggested that it would be helpful to receive a reminder from KCP&L when the peak times begin, for example, through a text message. Several respondents commented that they often forgot that the peak times were starting and therefore they forgot to take steps to reduce energy use in their homes. One respondent who was dissatisfied with the TOU program indicated that KCP&L "did not understand their own program," and that the system given to participants to control their window air conditioner did not work. This individual also mentioned that they had to spend "many hours" and make "many phone calls" to get assistance with implementing the program.

For those who expressed satisfaction with the TOU program when asked to explain their satisfaction rating, 47 percent (n = 47) mentioned that they were satisfied with the amount of money the program saved them, with six respondents additionally mentioning that they feel the program is good at raising individual awareness of energy use. Twenty-six percent of respondents commented that they felt the TOU program was beneficial overall.

Fifty-three percent of respondents indicated that their satisfaction with KCP&L has increased since first signing up for the program, as shown by Figure 56. Only three respondents indicated that their satisfaction decreased since participating in the TOU program.

Figure 56. Since you first signed up for the TOU program, would you say your satisfaction with KCP&L has…
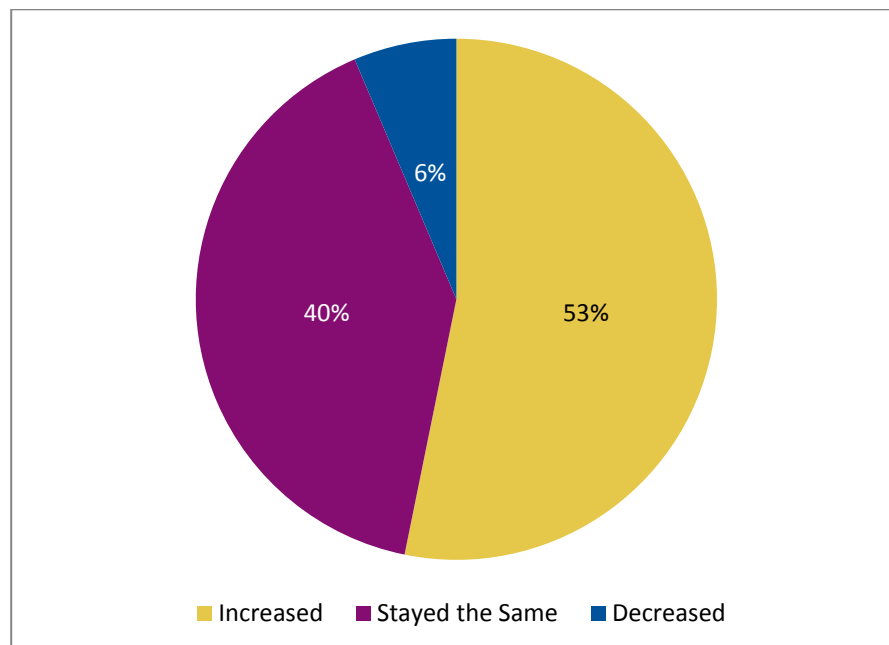
Note: n = 47
Source: Navigant analysis of survey response data

The evaluation team asked survey respondents to share any thoughts for how to improve the TOU program. Fifty-three percent of respondents indicated that they could not think of any improvements (n = 47). Nine respondents suggested that the program should have provided more information on the program for participating customers, or engaged in more marketing efforts to draw in more customers who were not yet participating. Four respondents suggested that the program be implemented year round as a benefit to the customer and to KCP&L. Other suggestions included providing reminders about program hours during the peak times (n = 3), and providing a bill/pricing comparison against other non-participation households during peak times to provide more context around how participating in the program benefits the customer (n = 3). Individual respondents also suggested offering a better incentive (i.e., lowering the off-peak rate even further), changing peak hour times, and providing a programmable thermostat. The program does offer a programmable thermostat as part of the SGDP, suggesting that more marketing to explain the details of how the SGDP functions would help more customers take advantage of all opportunities through the program.

6 Lessons Learned: Technology and Program Operations

As part of the evaluation, Navigant interviewed five key program staff[6] to discuss their experiences with the SGDP overall, to assess the reliability, performance, and customer experience with the technology used in the pilot programs. The evaluation team conducted these interviews in-house between October 31, 2014, and November 14, 2014.

6.1 Overall Program Goals

Project interviews were aligned with the overall SGDP goals--testing the prescribed smart grid technologies in a pilot setting with a small subset of KCP&L's customers. While the technology component was at the forefront of the project's goals, KCP&L staff generally agreed that customer experience and satisfaction remained a top priority throughout all stages of the project.

6.2 Technology-Specific Findings

Lessons learned are organized by the technology group below, with elaboration on key findings where appropriate.

6.2.1 MySmart Portal

In launching the MySmart Portal, KCP&L staff set the goal of obtaining 2,660 registrations.[7] Ultimately, the portal fell short of this goal by approximately 300 enrollments; however, KCP&L staff expressed that the portal component was successful; as the approach was new to the company, projecting customer response was difficult.

Interviews revealed that the project stakeholders considered the graphic information provided by the portal as the most successful aspect of the SGDP. The Account Link website, which offered similar options for KCP&L customers to access information about their energy use, did not include the same interactive and graphics as were found on the MySmart Portal. Additionally, staff felt that the ability for customers to see their energy use in such small intervals was very successful in allowing customers to more fully understand how their behaviors correlate to their energy bill. KCP&L staff shared an anecdote about a specific instance where a Customer Service agent was able to use the portal to help a customer understand and lower her energy consumption by tracking her morning routine as it related to her interval-use data.

KCP&L staff view ongoing customer engagement with the portal as a less successful aspect of the program. As the web use analysis and customer surveys showed, customer interest and interaction with the MySmart Portal dropped over time, and staff expressed the opinion that KCP&L could have been more proactive in continuously marketing the portal to current users to encourage ongoing interaction. Program staff noted that some customers were initially dissatisfied with the MySmart Portal, as it was lacking a number of features they had become accustomed to through the AccountLink portal, such as

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[6] One person interviewed was an outside contractor working in-house with KCP&L staff.

[7] The staff member who supplied this number acknowledges that it is an estimation.

being able to view data in a tabular format, downloading usage data, and having weather overlaid in the system. As customers became more accustomed to the MySmart Portal, KCP&L staff noted a reduction in complaints on this issue.

Customers failed to engage with the social aspects of the MySmart Portal in the way that KCP&L staff anticipated. As shown in the participant survey (see Figure 14), customers proved more interested in using the portal to view their billing and usage data and less interested in setting goals, earning points, or interacting with "energy experts." KCP&L added most of these social features to the second version of the MySmart Portal, in an effort to provide customers with more ways to engage with their energy use and save money through the program; however, customers used these features infrequently. Additionally, KCP&L launched the second version of the MySmart Portal before it was fully functional, and staff indicated that if they could do it differently, they would have extended the launch to ensure a smooth and functional roll-out of the updated portal.

6.2.2 MySmart Display

In general, KCP&L staff viewed the MySmart Display as a useful piece of technology that they initially deployed in a manner that, unfortunately, detracted from its intended purpose. Staff distributed this technology to customers when they signed up to participate in the SGDP, and most often this occurred before a subcontractor could install their meter. As such, participants couldn't use the device for a period of time after receiving it, leading to dissatisfaction and, in some cases, customers failing to use the technology altogether. KCP&L staff mentioned that this was the least successful component of the MySmart Display component, and if they were to implement the program again, they would wait to distribute the displays until the system was prepared and subcontractors were available to quickly commission the displays, install them properly, and do some simple customer education before leaving.

Interviewees felt that one of the most successful features of the display was the implementation of a customer estimated bill, giving customers a very good idea of whether they were on track to meet their monthly energy budget. This feature was implemented in the back office to include taxes and estimated fees so as to give an accurate picture of the upcoming bill. This estimation technique was more sophisticated than the simple estimation that has been used by other utilities in pilots, and two interviewees felt that this was a success and definitely appreciated by some program participants.

In addition to timing issues, the MySmart Display screens had some reliability problems. For example, a number of them blacked out and others had firmware problems, causing them to malfunction. This inconvenienced the customer and proved difficult for KCP&L and project stakeholders to trouble-shoot.

6.2.3 MySmart Thermostat/MySmart Home

From a technological point of view, KCP&L contractors viewed the AMI-controlled thermostats very favorably. The demand response messaging sent through the thermostat worked reliably and KCP&L had an increased ability to trouble-shoot issues as they arose. Having said that, as the participant surveys showed, participants reported low levels of awareness when asked whether they recalled receiving an event alert.   KCP&L also felt that the thermostats worked as a main attractor for the overall SGDP, which is both positive and negative. While it was good that the device attracted people to the program, the desire for a free thermostat seemed to have attracted some customers that were less

interested in saving energy. Some of these customers were less engaged, and many were not willing to take the time to understand the various aspects of the system.

One technically focused interviewee felt that one of the least successful components of the MySmart Thermostat was the compatibility issues encountered upon installation of the device. This individual felt that, in some cases, the electrical subcontractors hired to install the thermostats were not sufficiently qualified or trained. Additionally, some customer HVAC systems did not meet requirements for device installation, leaving the customer with a choice between not participating or having an additional technology and wiring installed to make the thermostat compatible with the HVAC. Customer Service agents also noted that many times the MySmart Thermostat would work as intended with air conditioning, but as the seasons changed and heat came on the thermostats failed, as it was not compatible with the heating part of the HVAC system.

KCP&L staff and contractors noted that the MySmart Home devices often did not always function as intended, due primarily to networking difficulties and reliable communications with the customer's broadband service. Burns & McDonnell tested the technology in the laboratory, which had more ideal communications conditions, i.e., reliable broadband and wireless connectivity. Unfortunately, these conditions did not always represent the situation encountered in real homes. Staff felt that these connection issues may have also led to lower participation rates in demand response events. In addition, the broadband connectivity was harder to troubleshoot and diagnose problems than the AMI connectivity, making this configuration challenging. Some of this was due to customers unplugging their broadband routers and broadband service changes, which was out of the utility's control.

Staff noted that the provision process for these devices had to be well choreographed and it proved difficult at times to ensure that each step happened in order. Customer service indicated that contractors sent to customer homes to install load control devices often encountered problems setting up the devices, leading to extended time spent in customer homes beyond the quote originally given for an installation appointment. Overall, staff indicated that there was not enough training and practice with the process for installing the in-home technologies.

6.2.4 TOU

Despite a limited number of participants, staff viewed the TOU program as one of the most successful aspects of the SGDP due to high rates of customer satisfaction and the opinion that the rate structure is working in favor of customers.

Staff mentioned that one major issue that arose with the TOU program was in the omission of pricing data when installing smart meters at customer homes. To calculate estimated billing, the MySmart Display would pull usage time price from the smart meter, so KCP&L had to push this information to the meter daily during peak hours. This effectively remedied the problem, but required extra work.

Additionally, program staff indicated that, if possible, they would change the language used on the tariff filed for the TOU program. The language specifies a certain rate to be used during the summer months, and KCP&L hard-coded a set billing rate for outside of this tariff. With the progression of the pilot program, KCP&L staff estimates that this has left approximately 100 customers with a rate that is two

years old, and will remain so for the remainder of the year to avoid customer dissatisfaction. Staff indicated that they would have preferred language indicating that customers would revert to their normal rate outside of the summer months.

6.3   Customer Engagement

KCP&L staff reiterated throughout the interviews that they kept customer experience at the forefront throughout the SGDP. Customer Service staff noted that they used the so-called "white glove" treatment for customers throughout the project, setting up a dedicated, direct customer service line with speciallytrained staff. This service is considered by staff to be a valuable resource for customers who had questions about their bill or difficulty with any of the technological components of the SGDP.

Overall, KCP&L staff perceived participant customers to be generally satisfied with the program, which is in line with survey results. A common complaint received by staff came from customers dissatisfied with the MySmart Portal, who had been accustomed to the previous AccountLink version. Additionally, customers would often call in to report that their MySmart Display was not showing the correct billing rate for the time of day. Customer Service staff noted that, overall, complaints became less frequent as the SGDP matured.

In marketing the SGDP, KCP&L staff used a grass-roots approach, tailoring marketing messages to the targeted population. Email proved to be very effective in encouraging customers to sign up for the MySmart Portal, and while the survey results implied that direct mail was the best channel for marketing the program, staff considered door-to-door promotion of the SGDP as an effective way to sign people up for the program as a whole. Staff noted that the nature of a small target group, focused on a narrow segment of the service territory, posed limitations on the type of marketing that staff was able to engage in. It was not possible to use billboards or radio ads to promote the program as these would have reached customers outside of the designated territory.

7   Summary

In summary, Navigant presents the following key findings from this evaluation.

7.1   Overall

»   Participant awareness of the overall SGDP varied by program component. For example, MySmart Portal participants did not seem to connect the portal with the SGDP, while MySmart Thermostat and TOU participants reported high levels of awareness of the SGDP.

»   Participant motivations for signing up for their respective program components were consistently driven by a desire to understand and control their energy use, in many cases to save money. Less motivating was a desire to help the environment or assist KCP&L in managing its business risks, such as power outages or having to build new generation.

»   Participants reported high levels of satisfaction with the SGDP program components, as well as high levels of satisfaction with KPC&L. When asked, most participants felt that the program improved or maintained their level of satisfaction with KCP&L as a utility.

7.2   MySmart Portal

»   Overall, MySmart Portal participants did not seem to associate the online portal with the SGDP program as a whole.

»   The primary reason that survey respondents used the web portal was to understand and control their energy use, as opposed to finding ways to save money.

»   Only a few respondents had negative comments about the MySmart Portal, and most reported high levels of satisfaction both with the portal and with KCP&L as a company overall.

»   KCP&L struggled to maintain customer engagement with the MySmart Portal over time, with 36 percent of respondents reporting that the frequency at which they visited the site had decreased since they first joined.

»   MySmart Portal users tend to be under 30 years of age with a college degree. These users rent small, single-family homes or apartments and live alone or with one other person.

7.3   MySmart Display

»   MySmart Display survey respondents felt that the display was an effective tool for participants to use to gain control of their energy use and save money on their utility bill.

»   The primary reasons that survey respondents stopped using their display were because the device broke, never worked in the first place, or was too complicated for them to use.

»   Very few participants had concerns about the MySmart Display program when they first enrolled. Most were motivated to participate to have better control over their electric usage (65 percent) and save money on their utility bill (24 percent).

» The MySmart Display program has been effective at encouraging positive energy use behaviors.

» Participants believe the display is accurate, easy to use, and has the right mix of features.

» The vast majority (92 percent) of participants were satisfied with their display, leading to an increase in satisfaction with KCP&L for some.

» MySmart Display participants tend to be older and have higher levels of education than the average resident in the SGDP territory: The demographic makeup of the participants suggests that a program such as the MySmart Display program is likely to have applicability across the broader service territory.

7.4   MySmart Thermostat and Home Area Network

» Tstat/HAN participants were very familiar with the SGDP, though not as familiar as TOU participants. This is in contrast to MySmart Portal participants.

» As with TOU participants, Tstat/HAN participants learned about the opportunity to participate in the program primarily by information received through the mail.

» The main reason participants signed up for the Tstat/HAN component was to save money on their energy bills.

» Overall, participants expressed satisfaction with the MySmart Thermostat and felt that the device was easy to use and saved them money on their monthly bill, though this sentiment was not unanimous.

» Half of the survey respondents reported that their satisfaction with KCP&L increased since they first signed up for the Tstat/HAN program.

» Only 10 of the 32 survey respondents who participated in a demand response event (according to the program tracking database) could recall the event taking place.

» For the seven respondents who at one point opted out of participating in event (according to the program tracking database), most reported not knowing why or how they opted out.

7.5   Time-of-Use Rates

» TOU survey respondents were very familiar with the overall SGDP.

» The main way that respondents learned about the opportunity to participate in the TOU billing structure was by receiving information through the mail.

» Overall, respondents expressed satisfaction with the program and felt that the TOU plan was easy to understand and that KCP&L provided them with sufficient information about the program.

» The majority of respondents (68 percent) strongly agreed that their energy bill decreased after participating in the program.

» When asked if their household regularly altered electricity usage in response to higher peak rates, 49 percent of respondents strongly agreed that they regularly altered electricity use during peak periods.

Appendix A Web Analytics Memo

This section presents the web analytics memo referred to throughout this report, and the survey instruments used for this evaluation.

To: Gail Allen, Brian Field (KCP&L)

From: Erik Gilbert, Jenny Hampton, Amy Meyer (Navigant)

CC   Phil Gooch (KCP&L)
            Dan Violette (Navigant)

Date: August 4, 2014

Re: MySmart Portal Process Evaluation: Preliminary Findings

This memo outlines the results of Navigant's initial analysis of the MySmart Portal's Google Analytics and available program tracking data. In the final report, Navigant will present additional process evaluation findings based on analysis of data collected through the online participant survey and discussions with program staff.

Navigant presents this information via three sections: Section 1: Summary provides a high level description of conclusions drawn from the analysis. Section 2: Analysis Overview describes the methodology Navigant used to conduct this analysis and summarizes the overall portal statistics, and the Section 3: Detailed Analysis section presents the statistics at a more detailed level. The memo also includes an appendix with supporting information.

KCP&L may have some feedback and/or comments on this analysis. If this is the case, we can schedule a call to discuss, or receive your feedback via track changes comments on this document. We expect to address any comments in the final version of this material, which will be included in the final report.

A.1   Section 1: Summary

After reviewing Google Analytics available for the MySmart Portal, Navigant presents two overall conclusions:

1. In general, participating customers registered with and visited the MySmart Portal more frequently in the summer and winter months. These usage patterns are likely a result of customers looking for ways to save money on their energy bills during the cooling and heating seasons.
2. Registered users engaged more regularly with the second version of the site than with the first version of the site. This leads us to tentatively conclude that the second version of the portal is more engaging to users.

This memo presents details about these conclusions in the following sections.

A.2 Section 2: Analysis Overview

KCP&L released two versions of the MySmart Portal over the course of several years, the first version being active from October 2010 through October 2012 and the second version of the site being active from November 2012 to date. [8] Figure A-1 provides a screenshot of the page that users typically see upon accessing the second, and current, version of the MySmart Portal.

Figure A-1. Screen Shot of Version Two MySmart Portal Dashboard

Source: portal version two

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[8] The first version of the site was available at https://portal.smartgridkcpl.com.The second, and current, version of the site is available at https://kcpl.tendril-energize.com.

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Navigant reviewed Google Analytic and program tracking data from both versions of the MySmart Portal. The graphics in this report use color coding to indicate the difference between the two sites; green indicates data from the first version of the portal, and blue indicates data from the second version. Table A-1 summarizes the portal analytics metrics included in our analysis and their definitions. Table A-2 and Table A-3 summarize the MySmart Portal activity for each of these metrics.

Table A-1. Analytic Metrics Definitions

Metric	Definition
Page Views	The number of pages viewed, including repeated views of a single page.
User	Users that have had at least one session within the selected date range, including both new and returning users.
Session	The period a user is actively engaged with the site. For the purposes of this analysis, Navigant assumes that the length of individual sessions is determined by when a user's computer exits the site completely or when their session or computer goes inactive.
Average Time on Page	The average amount of time a visitor spent viewing a specified page or set of pages.
Average Pages/Session	The average number of pages viewed during a session, including repeated views of a single page.
Average Session Duration	Average time of a session.
Bounce Rate	The percentage of single-page visits (i.e., visits in which the person left the site from the entrance page without interacting with the page).

Sources: Google Analytics and program tracking data

Table A-2. Statistics Overview – Portal Version One

Date Range	October 2010 Through October 2012
Total Overall Page Views	50,148
Total Users	Data not available
Total Sessions	12,605
Average Time on Page	2:00 min
Average Pages/Session	3.98
Average Session Duration	6:05 min
Bounce Rate*	7%

*The bounce rate is not a good metric for comparison between web portal versions as it is calculated based on interaction with the entrance page. The entrance page for portal version one is the logon page, while for portal version two it is the dashboard.
Sources: Navigant analysis of Google Analytics and program tracking data

Table A-3. Statistics Overview – Portal Version Two

Date Range	November 2012 Through April 2014
Total Page Views	21,571
Total Users	408
Total Sessions	5,981
Average Time on Page	1:29 min
Average Pages/Session	3.61
Average Session Duration	3:53 min
Bounce Rate*	40%

The bounce rate is not a good metric for comparison between web portal versions as it is calculated based on interaction with the entrance page. The entrance page for portal version one is the logon page, while for portal version two it is the dashboard.
Sources: Navigant analysis of Google Analytics and program tracking data

A.3   Section 3: Detailed Analysis

This section presents web analytic statistics at a detailed level. The section is organized into several subsections: the Registration Patterns subsection discusses the data related to user registration for the second version of the site; the Patterns by Page Type subsection reviews usage trends related to several different types of pages on each version of the portal; the Page views subsection presents the number of pages viewed, including repeated views of a single page; and the Sessions subsection discusses trends related to the time period users actively engaged with the site during each visit.

Registration Patterns

As shown in Figure A-2, new user registration on the second version of the site gradually increased in the summer of 2013 (June through August), and then declined until a slight spike in January 2014.[9] These spikes are consistent with trends from the other metrics.[10] It is likely that the user increases in the summer of 2013 and January of 2014 correlate with rising energy bills due to seasonal weather. It's possible that these increases in user registration correspond with KCP&L promotional efforts. However, while details about marketing tactics for 2012 were available, this information was not available for the other years. The spike seen in November 2012 correlates with the launch of the second version of the web portal.

Figure A-2. New User Registration – Portal Version Two
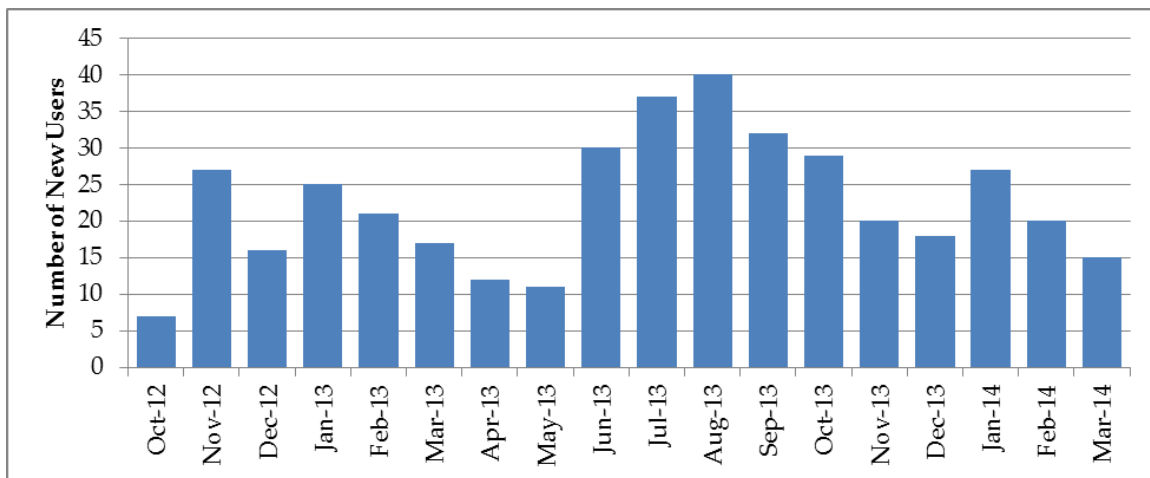
Source: Navigant analysis of program tracking data

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[9] Navigant only reviewed new user registration data for the second version of the portal, as data for the first version was not available.

[10] Portal version two data shows this general trend for the pageviews, number of sessions, number of sessions involving once-per-month visitors, and average number of pages visited metrics. These metrics are discussed and shown in detail further on in the memo.

Patterns by Page Type

Navigant categorized each individual page on the two versions of the portal into one of several categories to better review user patterns on individual page types.[11] Categories included administrative pages, educational tools (interactive/information), and the login page. Figure A-1, seen earlier, in an example of a typical "tool" page; Figure A-3 offers an example of an "administrative" page.

<div align="center">

Figure A-3. Example of Administrative Page

</div>
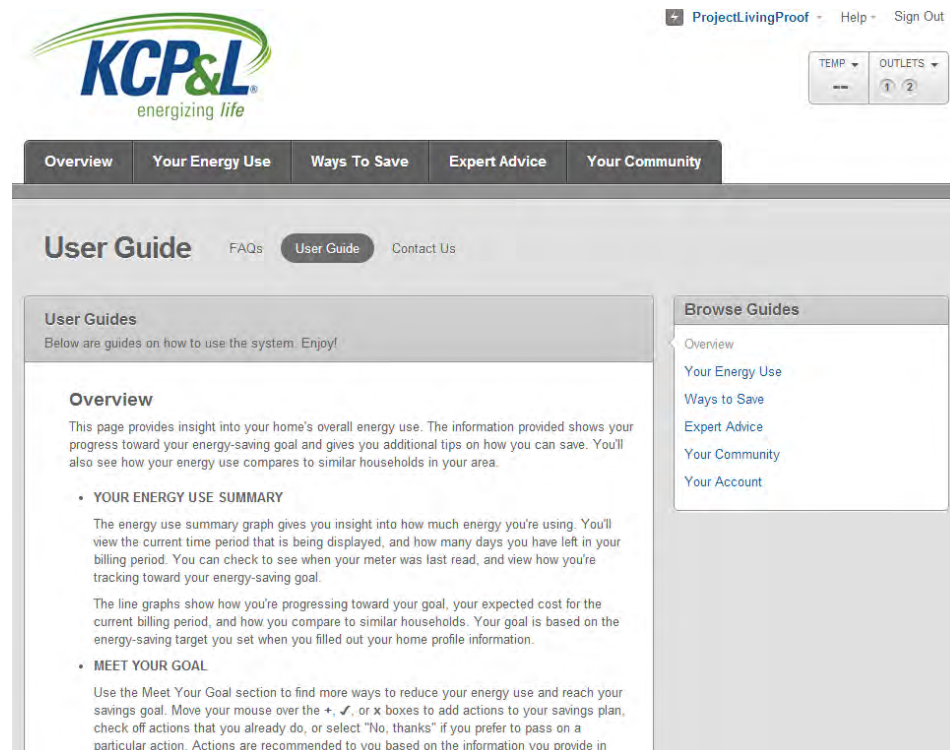
Source: Portal version two

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[11] Note, the Navigant team did not have access to version one of the portal; we made page type assignments for version one solely based on URL titles rather than visiting the actual pages.

As seen in Figure A-4, for the first version of the web portal, users split their time evenly between administrative/login pages and tool pages. In the second version of the portal, users spent a majority (66%) of their time on tool pages, showing an increase in the use of interactive pages compared to the first version of the site. Note that version one of the portal included a separate login page, which accounts for 21% of overall traffic.

Figure A-4. Page Type Breakdown
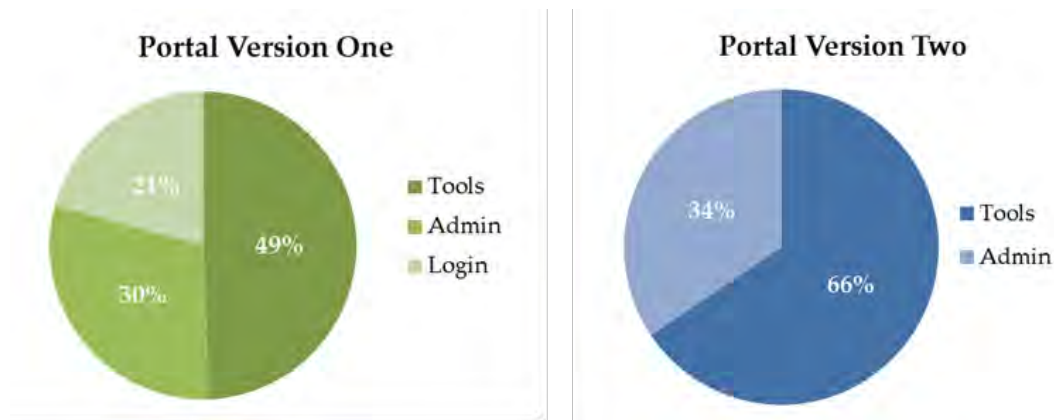
Note: unlike the rest of the analysis, for this graphic portal version one data covers October 2010 through December 2012 and portal version two data covers November 2012 through April 2014. Portal version two analytic data did not include login page visits.

Source: Navigant analysis of Google Analytic data

For context, Navigant compared this page type breakdown data to similar data from an evaluation of a home energy report web portal program and found that users of the MySmart Portal spent more time viewing "tool" pages (66% of page views) than users of the home energy report program (47% of page views).

Pageviews

Figure A-5 shows that the first portal version's page views fluctuated quite significantly from October 2010 through October 2012, hitting peaks in September 2011 and again in September 2012. Page views for the second version remained minimal for the first few months, gradually increased from February 2013 through June 2013, and then gradually declined from July 2013 through April 2014. Page view spikes occurred in September and December 2011, and August 2012 for the first website, and in July 2013 for the second website. Because these patterns align with the registration patterns highlighted in Figure A-2, we can assume that the spikes in page views are due to new users visiting the site upon registration.

Figure A-5. Number of Page Views

Source: Navigant analysis of Google Analytic data

As mentioned earlier, KCP&L provided Navigant with details about marketing tactics for 2012. Figure A-6 presents an overlay of this marketing data and the number of page views on each version of the site in 2012. A review of this data reveals little correlation between marketing efforts and page views; however, because of the lack of data outside of 2012, we cannot conclude whether KCP&L marketing efforts were effective. Marketing efforts from May 2012 through December 2012 time included materials aimed at transitioning users from portal version one to portal version two, and increasing overall customer awareness of the portal. Table A-4 in the appendix provides detail on the marketing tactics summarized in Figure A-6.

Figure A-6. Marketing Activity from May 2012 to December 2012
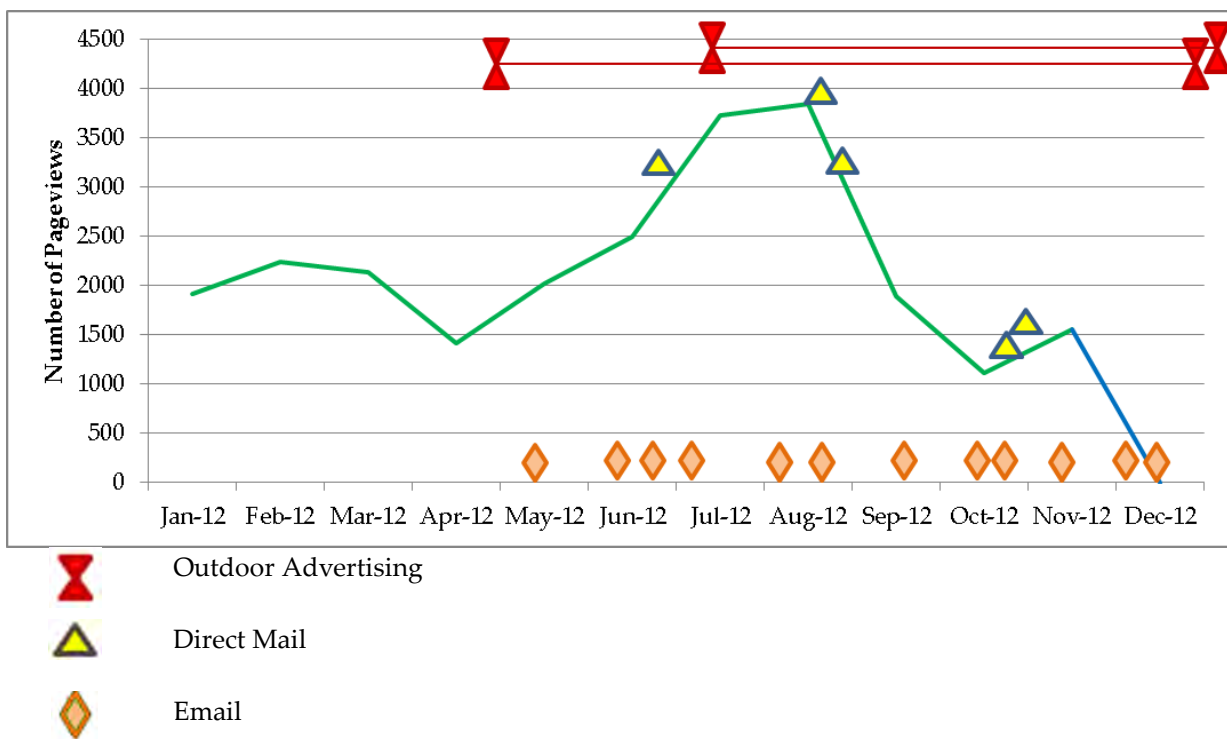
Source: *Navigant analysis of Google Analytic and program tracking data*

Sessions

Similar to the trends shown in the previous graphics, the number of sessions on the second version of the site steadily increased after from January 2013, reaching a peak in August 2013 and then decreasingly slightly with small peaks through April 2014. This is consistent with the conclusion that web portal traffic increases in the summer and, to a lesser extent, winter months. Figure A-7 demonstrates this trend.

Figure A-7. Number of Sessions

Source: Navigant analysis of Google Analytic data

Figure A-8 shows that for the first version of the web portal, an average of 49 percent of sessions came from people who engaged in multiple sessions each month. For the second version of the website, an average of 57 percent of sessions were associated with multiple-session-per-month users, a slight increase compared to the first version. To further highlight this, the trend lines for each portal show that, while the share of users engaging with the portal more than once a month increased over time for both versions of the portal, the share was slightly higher for the second version. This implies that the second version of the site is more engaging to users.

Figure A-8. Percent of Sessions Involving Repeat Monthly Visitors
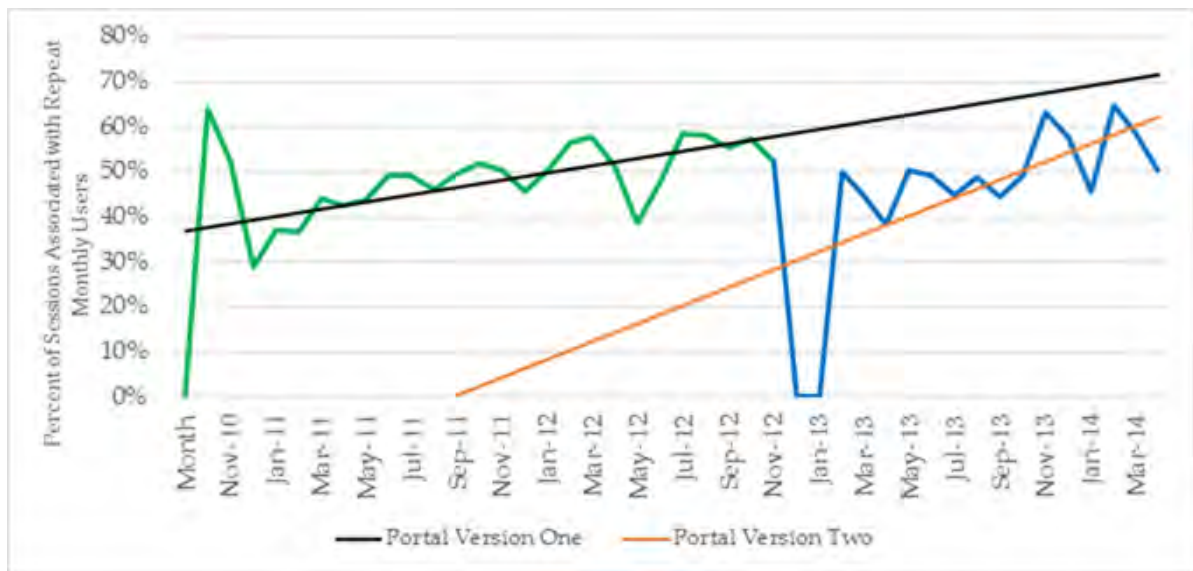
Source: Navigant analysis of Google Analytic data

When looking at the average number of pages per session, we see a general decrease for portal version one and a slight increase for portal version two, as shown in Figure A-9. This implies that users found the second version of the site more engaging. Pages per session spiked in November 2012, likely due to the launch of the new version of the portal.

Figure A-9. Average Number of Pages Visited per Session
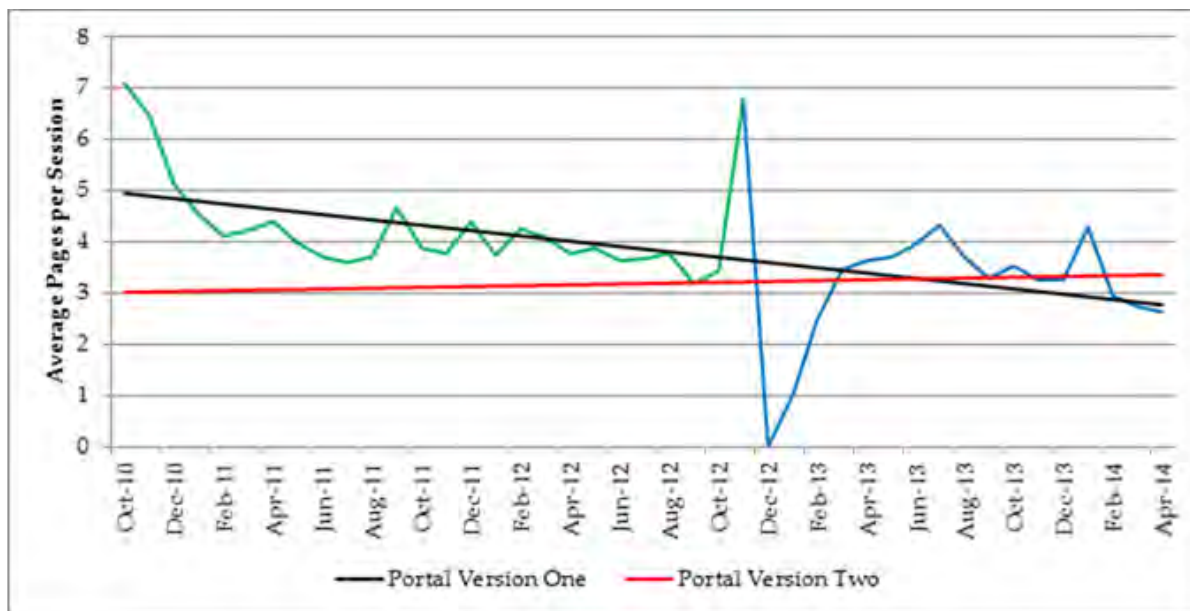
Source: Navigant analysis of Google Analytic data

Figure A-10 illustrates, overall, users spent less time per session on the second version of the web portal compared to the first (6:06 minutes versus 3:46 minutes). This finding is not meant to contradict Navigant's earlier conclusion that users of the second web portal engaged with the site more; spending less time per session likely indicates that users are able to more quickly locate the content they are seeking on the second version of the site, or that users are learning to navigate the portal more quickly over time.

Figure A-10. Average Session Duration
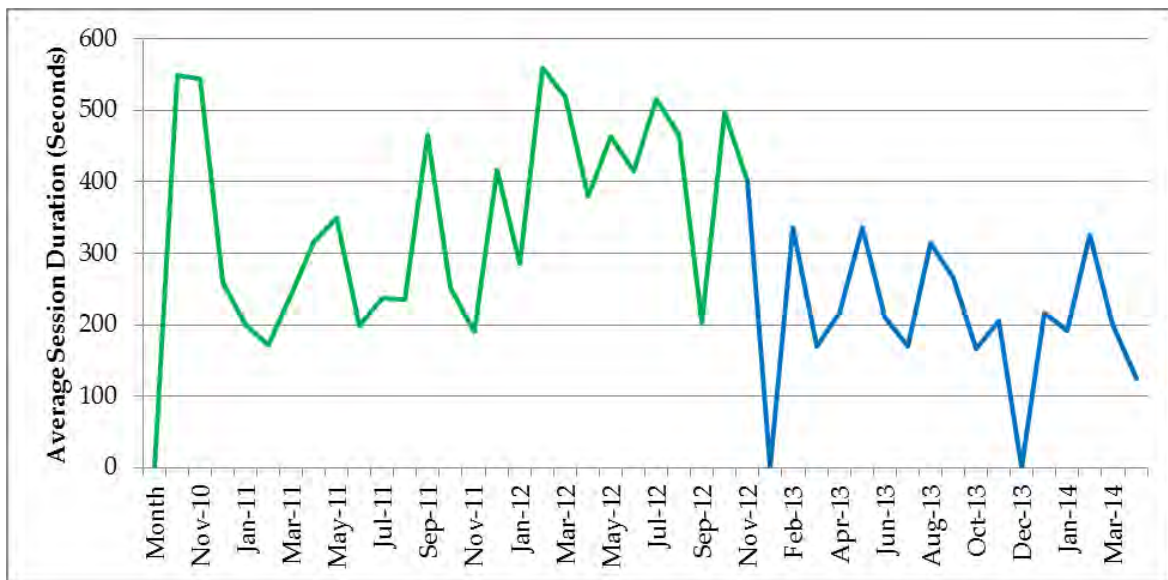
Source: Navigant analysis of Google Analytic data

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Table A-4 gives a more detailed look at the marketing activities KCP&L conducted in 2012. Note that many of these marketing efforts focused on other components of the SGDP, such as time of use rates or MySmart Thermostat.

Table A-4. 2012 Marketing Activities

Activity	Details	Month
Email	Get Smarter about Energy	May
	Time of Use	June
	MySmart Thermostat and MySmart Home	June
	Time of Use	July
	Cross Promotional	August
	Optimizer Upgrade	August
	Smart Grid Facts/Did you Know	September
	Famatina Portal Launch	October
	New Happenings - Demo House	October
	New MySmart Home Features	November
	MySmart Portal with AccountLink	December
	Happy Holidays from Smart Grid	December
Direct Mail	TOU Rates Letter	June
	Webkey Teaser Postcard	August
	Webkey Mailer	August
	Interloop Mailer	October
	Door Hangers	October
Outdoor Advertising	Billboards	July through December
	Bus ads	April through December

Source: KCP&L document "Smart Grid Tactic Measurement 11.16.12"

Figure A-11 shows that 99% of sessions originated from the United States. For those initiated from outside of the US, most sessions involved accessing pages that require a login. We can speculate that some customers viewed their home energy usage while out of the country while on vacation or traveling for business.

Figure A-11. Geographical Distribution of Portal Users – Portal Version Two
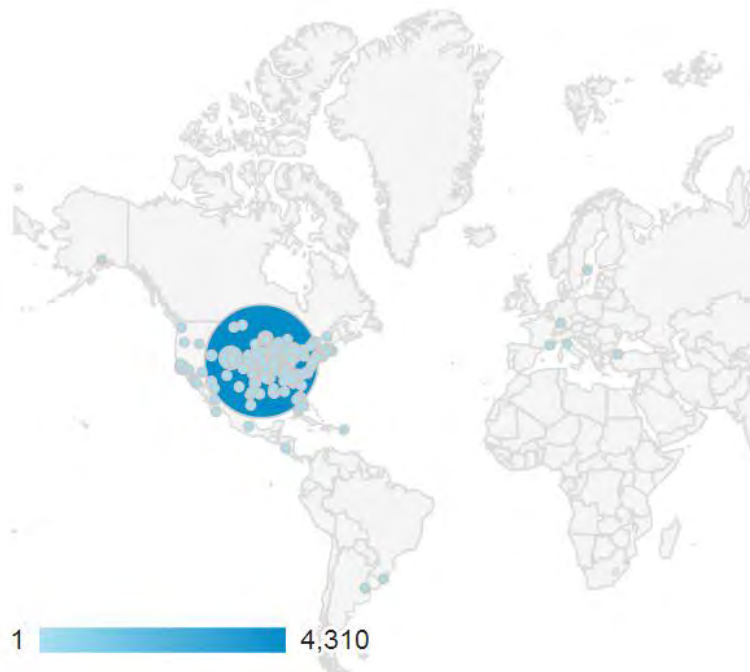
Note: The scale refers to number of sessions, with darker colors indicating a higher concentration. The size of each circle additionally corresponds to this metric (number of sessions).
Source: Google Analytics

The vast majority (89%) of users visited the second version of the MySmart Portal on their desktop/laptop computers, as shown in Figure A-12.[12] A few users used their mobile phones or tablets to access the portal.

Figure A-12. Technology Used to Access Web Portal – Portal Version Two
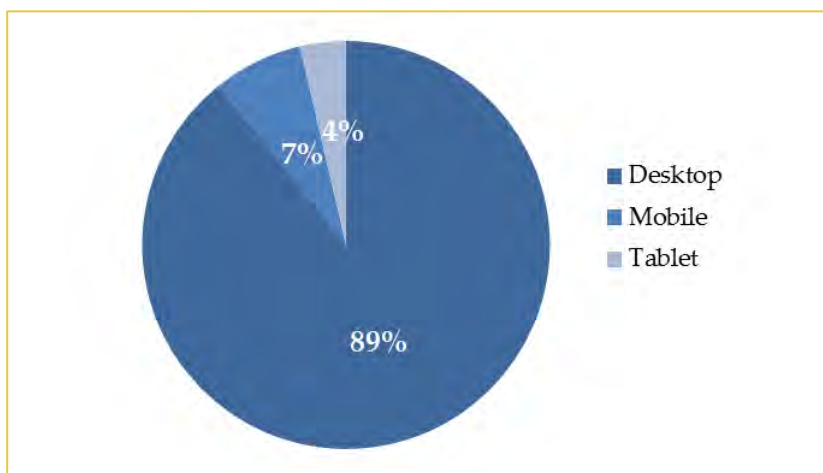
Source: Navigant analysis of Google Analytic data

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[12] This data was not available for the first version of the site.

NAVIGANT

Appendix B Survey Instruments

This section includes the final copies of survey instruments used in this evaluation. The surveys included are the MySmart Portal Participant Online Survey, the Time of Use Rate Participant Phone Survey, the MySmart Thermostat and MySmart Home Participant Phone Survey, and the MySmart Display Phone Survey.

B.1 *MySmart Portal Participant Online Survey*

This survey was administered to Portal users not enrolled in the Time of Use program at the time of the survey (August 2014). The survey will be administered via a Web interface with the invitation sent via e-mail.

Survey Email Invitation
[SUBJECT LINE]: The KCP&L MySmart Portal Program Needs Your Feedback
Dear [INSERT CUSTOM VARIABLE 1],
Thank you for your participation in KCP&L's MySmart Portal Program. Our records show that you created an account in [INSERT CUSTOM VARIABLE 2], and we hope you will take a few minutes to complete a short survey to share your experience using the web portal. Your feedback will help us ensure that KCP&L is effectively meeting your needs.
The survey will take no more than 10 minutes to complete. The survey administrator will keep your responses confidential; analysis of results will not identify individual respondents. If you have any questions, please contact Amy Meyer at 303.728.2475 or amy.meyer@navigant.com.
Thank you in advance for your participation. We hope to receive your feedback by August 4th.
To begin, please click here [INSERT LINK].
Sincerely,
The KCP&L Team

Survey Start Page
Thank you for taking time to tell us about your experience with the KCP&L MySmart Portal program. Your feedback is important and will help us ensure that KCP&L is effectively meeting your needs.
The survey will take approximately 10 minutes to complete. For your convenience, you can save and resume the survey at any time. The survey administrator will keep your responses confidential; analysis of results will not identify individual respondents.
If you have any questions, please contact Amy Meyer at 303.728.2475 or amy.meyer@navigant.com.
[START LINK]

Reminder Email
 [SUBJECT LINE]: Reminder: The KCP&L MySmart Portal Program Needs Your Feedback
Dear [INSERT FIRST NAME],
Please don't forget to complete this short survey about the KCP&L MySmart Portal Program. Your feedback is extremely important and will help ensure that KCP&L is effectively meeting your needs.

NAVIGANT

The survey will take no more than 10 minutes to complete. The survey administrator will keep your responses confidential; analysis of results will not identify individual respondents. If you have any questions, please contact Amy Meyer at 303.728.2475 or amy.meyer@navigant.com.

Thank you in advance for your participation.

To begin, please click here [INSERT LINK].

Sincerely,

The KCP&L Team

Program Experience

1. On a scale from 1 to 5, where 1 is not at all familiar and 5 is extremely familiar, how would you rate your familiarity with KCP&L's SmartGrid Pilot program?

2. Our records indicate that you created an account on the KCP&L MySmart Portal in [INSERT ACCOUNT CREATION YEAR]. Do you recall creating the account?

    Yes

    No [ASK 2a]

    Don't Know [ASK 2a]

    2a. To refresh your memory, the portal allows you to view your home energy bills online, and features helpful tools including energy saving tips, neighborhood usage comparison, and savings goal tracking. With this description in mind, do you recall creating the account?

    Yes

    No [TERMINATE]

    Don't Know [TERMINATE]

3. How did you hear about the MySmart Portal program? Check all that apply.

    In an e-mail from KCP&L

    On the KCP&L website

    Received material in the mail

    From a community group

    From a friend or family member

    Someone came to my door

At a community event

A billboard

Don't recall

Other [PROVIDE SPACE TO SPECIFY]

4. What is the main reason you started using the MySmart Portal? (Select only one.)

To save money
To take control of my energy use
To do my part in protecting the environment
Other [PROVIDE SPACE TO SPECIFY]

5. Please rate how frequently you used each of the following sections in the MySmart Portal within the past 12 months. [CREATE A MATRIX OFFERING THE FOLLOWING OPTIONS: "Did Not Use", 1-5 times, 6-10 times, 11-20 times, 21-30 times, 31 or more times]

Dashboard / Home Page - provides an overview of your energy use for the current month, provides tips for how you can meet your energy savings goal, and demonstrates how you compare to similar homes
Your Energy Use - provides energy usage charts on a daily, weekly, monthly, and yearly basis, and includes chart showing where energy is being spent in your home
Energy Saving Tips - provides tips for saving energy, including the estimated savings per year
Your Pricing Plan - shows the current pricing plan for energy services provided by KCP&L
Expert Advice / Ask An Expert - enables you to ask a question of an expert regarding your home energy use
Setting an energy savings goal - allows you to create an annual energy savings goal
Home Energy Profile – allows you to provide information about your household for more accurate estimates of potential savings
Billing and Usage History - provides overview of your household usage and energy bill over time
Your Community - provides summary of what actions other households are taking, includes basic comparisons

6. On a scale from 1 to 5, where 1 is strongly disagree and 5 is strongly agree, please tell to what extent you agree with the following statements:

I used MySmart Portal…

... to understand how much energy I use on a regular basis (daily, weekly, monthly, or yearly)

... to better understand where energy is used in my home

... to obtain tips on how to save energy

... to connect with experts about my home energy use or ways to save

... to create an annual energy savings goal

... to view my billing and usage history

... for other reasons [PROVIDE SPACE TO SPECIFY]

7. Are there any other reasons that you chose to start using MySmart Portal?

    [OPEN ENDED]

8. How often have you looked at MySmart Portal in the last month?

    I have not looked at MySmart Portal in the last month

    Just once

    Two to five times

    Six to 15 times

    Greater than 16 times

9. Has the frequency at which you visited the MySmart Portal increased, decreased, or stayed the same since you first signed up for MySmart Portal in [INSERT ACCOUNT CREATION YEAR]?

    Increased

    Stayed the same

    Decreased

10. Please tell us why the frequency of your visits has [INSERT RESPONSE FROM Q9].

    [OPEN ENDED]

11. On a scale from 1 to 5, where 1 is not at all useful and 5 is extremely useful, how would you rate the usefulness of MySmart Portal overall?

    11a. Please provide the reason you gave the MySmart Portal this rating.

    [OPEN ENDED]

NAVIGANT

12. On a scale from 1 to 5, where 1 is not at all useful and 5 is extremely useful, how would you rate each of the following sections in the MySmart Portal? [CREATE A MATRIX OFFERING SELECTIONS 1-5 AND INCLUDE A "DID NOT USE" OPTION]

Dashboard / Home Page - provides an overview of your energy use for the current month, provides tips for how you can meet your energy savings goal, and demonstrates how you compare to similar homes
Your Energy Use - provides energy usage charts on a daily, weekly, monthly, and yearly basis, and includes chart showing where energy is being spent in your home
Energy Saving Tips - provides tips for saving energy, including the estimated savings per year
Your Pricing Plan - shows the current pricing plan for energy services provided by KCP&L
Expert Advice / Ask An Expert - enables you to ask a question of an expert regarding your home energy use
Setting an energy savings goal - allows you to create an annual energy savings goal
Home Energy Profile – allows you to provide information about your household for more accurate estimates of potential savings
Billing and Usage History - provides overview of your household usage and energy bill over time
Your Community - provides summary of what actions other households are taking, includes basic comparisons

Energy Use in the Home

13. On a scale from 1 to 5, where 1 is completely disagree and 5 is completely agree, to what extent do you agree with the statement: "After using the MySmart Portal, I better understand the types of actions I need to take to reduce my electricity usage and save money."

14. Have you taken any steps to save energy in your home in the past year?
>   Yes
>   No
>   Don't Know

[IF RESPONDENT ANSWERED "YES" TO Q14, ASK Q14a]

14a. What actions have you taken? Check all that apply.

>   Turn air conditioning down

>   Turn air conditioning down when I leave home

Turn air conditioning off

Turn Lights off

Turn TV(s) off

Turn Computer off

Turn printer off

Unplug chargers for phones and other devices

Use the shut down or "sleep" options for electronics when not in use

Don't run electric dryer

Don't wash clothes

Line dry washed clothes

Lower water heater temperature

Use only warm or cold water for washing clothes

Don't cook on electric stove/oven

Had my home weatherized

Other (provide space to specify)

Don't Know

[IF RESPONDENT ANSWERED "YES" TO Q14, ASK Q14b]

14b. On a scale of 1 to 5, with 1 being not at all influential and 5 being extremely influential, how influential was the MySmart Portal in your decision to make these changes in your home?

Satisfaction

15. On a scale from 1 to 5, where 1 is completely dissatisfied and 5 is completely satisfied, how satisfied are you with KCP&L as a company overall?

15a. Please provide the reason why you gave this rating.
[OPEN END]

16. On a scale from 1 to 5, where 1 is completely dissatisfied and 5 is completely satisfied, how satisfied are you with KCP&L's SmartGrid Pilot program?

16a. Please provide the reason why you gave this rating.
[OPEN END]

17. On a scale from 1 to 5, where 1 is completely dissatisfied and 5 is completely satisfied, how satisfied are you with MySmart Portal?

> 17a. Please provide the reason why you gave this rating.
> [OPEN END]

18. Have you recommended the MySmart Portal to a friend or family member?
    Yes
    No
    Don't Know

19. Since you first signed up for the MySmart Portal, would you say your satisfaction with KCP&L has:
    Increased
    Stayed the same
    Decreased

20. Do you have any suggestions on ways that KCP&L could improve the MySmart Portal?

    [OPEN ENDED]

21. Do you have any other comments to share about MySmart Portal based on your experience so far?

    [OPEN ENDED]

Demographics
We are almost done- we just need to ask you a few final questions for classification purposes.

22. Do you own or rent your home?

    Own

    Rent

    Don't know

    Prefer not to answer

23. Which of the following best describes your home? Is it…

    Single-family

Twin, duplex or two-family unit

Apartment/condo in a 2-4 unit building

Apartment/condo in a >4 unit building

Townhouse or row house (adjacent walls to another house)

Mobile home, house trailer

Or something else (Specify)

Don't know

Prefer not to answer

24. What is the approximate square footage of your house?

<500 sq ft
501 – 1000 sq ft
1001 – 2000 sq ft
2001– 3000 sq ft
>3000 sq ft
OTHER [Specify]

Don't know

Prefer not to answer

25. How many people, including yourself, live in your home full-time at least six months of the year?

1
2
3
4
5
6
7
Over 7

Don't know

Prefer not to answer

NAVIGANT

26. Please select the option that best represents your total 2013 household income (before taxes).

Less than $30,000

$30,000 but under $50,000

$50,000 but under $75,000

$75,000 but under $100,000

$100,000 but under $150,000

$150,000 but under $200,000

Above $200,000

Don't Know

Prefer not to answer

27. What is the highest education level you have completed?

Some high school

High school graduate

Some college/vocational school

College degree

Graduate or professional degree

Other [SPECIFY OTHER]

Prefer not to answer

28. What is your gender?

Male
Female
Prefer not to answer

29. Please select your age range.

Under 21 years old
22 – 29 years old
30 – 39 years old
40 – 49 years old
50 – 64 years old
65 years old or older
Prefer not to answer

Those are all the questions we have for you today. Thank you for your time. KCP&L appreciates your participation.

B.2   Time of Use Rate Participant Phone Survey

This survey was administered to customers enrolled in September 2014. The survey was administered via phone.

Screener

<u>INBOUND 800 LINE SCRIPT:</u>
Hello, my name is (YOUR NAME) from Bellomy Research, calling on behalf of KCP&L, your energy provider. KCP&L is gathering information and opinions about the Time of Use program. If you qualify and complete the survey, we will mail you a $20 check. Would you please call us at 1-800-348-7998 Monday-Saturday from 9am to 5pm (EST)? PLEASE REFER TO ID# **[INSERT UNIQUE ID FROM SAMPLE]** when you call. Thank you!
    1.   Left voicemail

===
====

SCR1. Hello, my name is (YOUR NAME) calling from Bellomy Research on behalf of KCP&L, your energy provider. May I please speak with **[INSERT FIRST NAME FROM SAMPLE]**? **(IF NOT AVAILABLE, ASK:**
May I please speak to one of the people in your household that is most knowledgeable about your electric utility?)

(IF NO ONE AVAILABLE OR NOT A CONVENIENT TIME, SCHEDULE A CALL BACK.)

(IF RESPONDENT ASKS HOW LONG, SAY: "APPROXIMATELY 10 MINUTES.")

SCR2. We are working with KCP&L and contacting customers who are participating in the Time of Use program.
Please be assured that your responses will be kept strictly confidential and will be used for market research purposes only.

As a token of our appreciation, if you <u>qualify and complete</u> the entire survey, you will receive a $20 incentive check for your participation. At the end of the survey, we will need to collect your current mailing address so that we can mail your incentive check.

Are you one of the persons in this household that is most knowledgeable about your electric utility and information related to this rate plan and household energy use?
1. Yes **[SKIP TO SCR5]**
2. No **[ASK SCR3]**
98. Don't Know **[ASK SCR3]**
99. REFUSED **[TERMINATE]**

SCR3. May I please speak with the person in your household that would be able to discuss information related to this rate plan and household energy use? **(IF NOT AVAILABLE, ASK WHEN IS THE BEST TIME TO CALL THE NEW CONTACT BACK AND SCHEDULE A CALLBACK. REMEMBER TO RECORD THE CORRECT NAME OF THE PERSON TO ASK FOR.)**
1. Yes, available
2. No, no other adult **[TERMINATE]**
98. Don't Know **[TERMINATE]**
99. REFUSED **[TERMINATE]**

SCR4. Hello, my name is (YOUR NAME) and I'm calling from Bellomy Research on behalf of KCP&L, your energy provider. We are working with KCP&L and contacting customers who are participating in the Time of Use program. *Please be assured that your responses will be kept strictly confidential and will be used for market research purposes only.*

As a token of our appreciation, if you <u>qualify and complete</u> the entire survey, you will receive a $20 incentive check for your participation. At the end of the survey, we will need to collect your current mailing address so that we can mail your incentive check.

Are you one of the persons in this household that is most knowledgeable about your electric utility and information related to this rate plan and household energy use?
1. Yes

2. No **[TERMINATE]**
98. Don't Know **[TERMINATE]**
99. REFUSED **[TERMINATE]**

SCR5. We are conducting a short survey that will help KCP&L to evaluate the Time of Use program.
Your feedback about the TOU Program is very important to KCP&L. Your answers will not be reported individually. Instead we will report the responses of the whole group of customers who participate in this study.

(**READ IF NECESSARY**: The questions that I have should take approximately 10 minutes to complete.)
(**INTERVIEWER: IF THIS IS NOT A CONVENIENT TIME, ASK WHEN IS THE BEST TIME TO CALL AND SCHEDULE A CALLBACK. REMEMBER TO RECORD THE CORRECT NAME OF THE PERSON TO ASK FOR.)**
1. Continue
2. Refused to continue **[TERMINATE]**

Rate Structure
RS1. On a scale from 1 to 5, where 1 is "not at all familiar" and 5 is "extremely familiar", how would you rate your familiarity with KCP&L's Smart Grid Pilot program?

Not at all familiar				Extremely familiar	Don't know	Refused
1	2	3	4	5	98	99

RS2. Our records indicate that your household participates in the KCP&L Time of Use program where you pay a "peak" rate for your electricity during certain times of the week from May 16th through September 15th. Do you recall participating in this billing structure?
1. Yes **[SKIP TO RS3]**
2. No **[ASK RS2a]**
98. Don't know **[ASK RS2a]**
99. Refused **[ASK RS2a]**

[IF RS2 = 2, 98, OR 99 CONTINUE. OTHERWISE SKIP TO RS3.]
RS2a. To refresh your memory, a peak rate of $.38/kilowatt hour, compared to the off-peak rate of $.06/kilowatt hour, is active from 3pm-7pm Monday through Friday from May 16th through September 15th. Do you recall participating in this billing structure?
1. Yes **[SKIP TO RS3]**
2. No **[ASK RS2a1]**
98. Don't know **[ASK RS2a1]**

99.   Refused **[TERMINATE]**

RS2a1. Is there another adult in your household that I can speak with who may have signed up for the Time of Use program?" **(IF NOT AVAILABLE, ASK WHEN IS THE BEST TIME TO CALL THE NEW CONTACT BACK AND SCHEDULE A CALLBACK. REMEMBER TO RECORD THE CORRECT NAME OF THE PERSON TO ASK FOR.)**

1.   Yes, available
2.   No, no other adult **[TERMINATE]**
98.   Don't Know **[TERMINATE]**
99.   REFUSED **[TERMINATE]**

RS2a2. Hello, my name is (YOUR NAME) and I'm calling from Bellomy Research on behalf of KCP&L, your energy provider. We are working with KCP&L and contacting customers who are participating in the Time of Use program. Are you one of the persons in this household that is most knowledgeable about your electric utility and information related to the Time of Use rate plan?

1.   Yes
2.   No **[TERMINATE]**
98.   Don't Know **[TERMINATE]**
99.   REFUSED **[TERMINATE]**

[IF RS2a2 = 1, GO BACK TO RS1 AND START OVER.]
RS3. How did you hear about the KCP&L Time of Use program? (DO NOT READ LIST. RECORD UP TO EIGHT RESPONSES.)

1.   In an e-mail from KCP&L
2.   On the KCP&L website
3.   Received material in the mail
4.   From a community group
5.   From a friend or family member
6.   Someone came to my door
7.   At a community event
8.   A billboard
97.   Other (Please Specify)
98.   Don't know
99.   Refused

RS4. What is the <u>main reason</u> you signed up for the Time of Use program? Was it…(READ LIST. RECORD ONE RESPONSE)?

1.   To save money
2.   To help the environment

3.   To help KCP&L avoid power outages
4.   To help KCP&L avoid having to build a new power plant
97.   Other (Please Specify)
98.   (DO NOT READ) Don't know
99.   (DO NOT READ) Refused

RS4a. What is the second most important reason you signed up for the Time of Use program? Was it…(READ LIST. RECORD ONE RESPONSE)?
[EXCLUDE ANSWER FROM RS4. ALWAYS DISPLAY "Other Specify"]
1.   To save money
2.   To help the environment
3.   To help KCP&L avoid power outages
4.   To help KCP&L avoid having to build a new power plant
97.   Other (Please Specify)
98.   (DO NOT READ) Don't know
99.   (DO NOT READ) Refused

RS5. I am going to read you a short series of statements. Please tell me how much you agree or disagree with each statement on a scale from 1 to 5, where 1 means you "strongly disagree" and 5 means you "strongly agree". (READ FIRST STATEMENT, THEN ASK:) On a scale from 1 to 5, how much do you agree with that statement? (REPEAT SCALE AS NECESSARY.)

Strongly disagree				Strongly agree	Don't know	Refused
1	2	3	4	5	98	99

[RANDOMIZE ORDER]
RS5a.   The Time of Use rate plan is easy to understand.
RS5b.   My household regularly alters electricity use in response to the higher peak rate.
RS5c.   I would recommend the Time of Use program to family and friends.
RS5d.   I believe that my energy bill decreased after participating in the program.
RS5e.   KCP&L provided a sufficient amount of information to help our household adjust our electricity   use in response to the higher peak rate.

Energy Use
EU1. I am going to read you a list of things you might be doing to adjust your energy use during the peak rate hours of Monday through Friday from 3pm-7pm. Please tell me whether you always, sometimes, or never do each of the following because of the peak rate. The first statement is...(READ STATEMENT). Do you always, sometimes or never do that?

[SCALE]
1.   Always
2.   Sometimes
3.   Never
98.   (DO NOT READ) Don't know
99.   (DO NOT READ) Refused

[RANDOMIZE ORDER]
1.   Turn off additional lights during peak hours
2.   Postpone running dishwasher until off-peak hours
3.   Postpone running clothes washer until off-peak hours
4.   Postpone running clothes dryer until off-peak hours
5.   Air-dry or line-dry clothes
6.   Unplug electronics/appliances when not in use
7.   Turn air conditioning off for all or part of the peak hours
8.   Use fans instead of air conditioning during peak hours
9.   Set air conditioner to higher temperature during peak hours
10.   Cook before or after peak hours

EU2. What other things do you do to adjust your energy use because of the peak rate that I did not mention in the list? (RECORD VERBATIM. PROBE AS NECESSARY.)
_____ **[OPEN END]**

Satisfaction

S1. On a scale from 1 to 5, where 1 is "not at all satisfied" and 5 is "extremely satisfied", how would you rate your satisfaction with KCP&L as a company overall?

Not at all satisfied				Extremely satisfied	Don't know	Refused
1	2	3	4	5	98	99

S1a. Please tell me the reason you gave this rating. (RECORD VERBATIM. PROBE AS NECESSARY.)
_____ **[OPEN END]**

S2. On a scale from 1 to 5, where 1 is "not at all satisfied" and 5 and is "extremely satisfied", how would you rate your satisfaction with the Time of Use program?

Not at all satisfied				Extremely satisfied	Don't know	Refused
1	2	3	4	5	98	99

S2a. Please tell me the reason you gave this rating. (RECORD VERBATIM. PROBE AS NECESSARY.)
_____ **[OPEN END]**

S3. Since you first signed up for the Time of Use program, would you say your satisfaction with KCP&L has…(READ LIST)?
1.   Increased
2.   Stayed the same
3.   Decreased
98.   (DO NOT READ) Don't know
99.   (DO NOT READ) Refused

S4. Do you have any suggestions on ways that KCP&L could improve future Time of Use program offerings? (RECORD VERBATIM. PROBE AS NECESSARY.)
_____ **[OPEN END]**

S5. We are almost done. You have qualified to receive a $20 check for your participation. The check will arrive via postal mail within approximately four weeks. So that we can mail your check, please tell me your first and last name and your current mailing address. (INTERVIEWER: PLEASE VERIFY THAT FIRST AND LAST NAME ARE SPELLED CORRECTLY. THEN ENTER CURRENT MAILING ADDRESS. REMEMBER TO ASK FOR BEST "TIME OF DAY" FOR PHONE CONTACT AND RECORD ACCORDINGLY.)

First Name: _____

Last Name: _____

Address: _____

City: _____

State: _____

Zip Code: _____

Preferred telephone number: _____

Preferred time of day for phone contact: **[NOT REQUIRED]**

_____

Email address: **[NOT REQUIRED]**

_____

[PROGRAMMER: ALLOW CHECKBOX FOR "REFUSED".]

[CLOSE]

This ends the questions about the TOU program. KCP&L thanks you for completing the survey for us and providing your observations and insights about this program. Thank you for your time.

B.3   MySmart Display Phone Survey

This survey was administered to MySmart Display enrolled in September 2012. The survey was administered via phone.

[IF CONTACT NAME IS BLANK, INSERT "the head of household"]

Hello, this is [YOUR NAME] from Bellomy Research, we are conducting a short survey on behalf of KCP&L and would like to get your opinion on a few things. May I speak with [CONTACT NAME]? (**IF NOT AVAILABLE, SAY:** May I speak with the person within the [LAST NAME] household that is most knowledgeable about your energy bill?) **[IF NO ONE AVAILABLE FROM HOUSEHOLD, SCHEDULE A CALL BACK.]**

(INTERVIEWER NOTE: IF RESPONDENT WOULD LIKE TO TALK WITH SOMEONE FROM KCP&L ABOUT THIS SURVEY, THEY CAN CONTACT: Phil Gooch, Market Research Manager, KCP&L, email: phil.gooch@kcpl.com, phone: 816-701-0525.)

I1. According to our records, KCP&L is your energy service provider, is this still correct?

> Yes, KCP&L……………………………..1 **[CONTINUE]**
> No, another utility……………………. 2 **[CONTINUE AND TERMINATE AT 3A]**
> Don't know……………………………..98 **[CONTINUE AND TERMINATE AT 3A]**
> Refused………………………………….99 **[CONTINUE AND TERMINATE AT 3A]**

I'd like to ask you some questions about the MySmart Display you received from KCP&L. (If needed, the display is a small white device that shows you information about your energy usage.)

<u>SCREENER</u>

S1. Do you recall receiving a MySmart Display sometime around [join month, year]?

> Yes......................................1 **[SKIP TO S2]**
> No.......................................2 **[CONTINUE TO S1A]**

S1a. Is there anyone available who might be familiar with the MySmart Display?

> Yes......................................1 **[REPEAT S1 WITH NEW RESPONDENT]**

No....................................2
Refused 3
[IF S1A = 2 OR 3, THANK AND TERMINATE]
S2. Do you still have the display?
Yes....................................1 **[CONTINUE TO S3]**
No....................................2 **[ASK S2a AND TERMINATE]**
Don't know ....98 **[THANK AND TERMINATE]**
Refused ....99 **[THANK AND TERMINATE]**

[IF S2=2, CONTINUE. IF S2=1, SKIP TO S3. OTHERWISE, THANK AND TERMINATE]

S2a. Do you know what happened to the display? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES)

I threw it away.. 1

I lost it 2

It was stolen 3

I gave it to a friend/relative... 4

Other (specify) 5

Don't know .... 98**[SINGLE SELECTION]** Refused ....99**[SINGLE SELECTION]**
[IF S2=2, THANK AND TERMINATE]

S3. How often do you look at the information provided on the MySmart Display? (READ LIST)
Daily...1 **[CONTINUE]**
Weekly ....2 **[CONTINUE]**
Monthly ....3 **[CONTINUE]**
(DO NOT READ) Don't Use..................................4 **[ASK S3a AND TERMINATE]**
(DO NOT READ) Other, please specify...............5 **[CONTINUE]**
(DO NOT READ) Don't know ....98 **[THANK AND TERMINATE]**
(DO NOT READ) Refused ....99 **[THANK AND TERMINATE]**

[IF S3=4, CONTINUE TO S3a. IF S3=1-3 OR 5, SKIP TO Q1. OTHERWISE, THANK AND TERMINATE]

S3a. Why did you stop using the display? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.)

It never worked 1

It was too complicated.. 2

It wasn't helpful to me 3

It broke... 4

I lost it 5

It was stolen 6

I gave it to a friend/relative.. 7

Other (specify) 8

Don't know .... 98**[SINGLE SELECTION]**

Refused .... 99**[SINGLE SELECTION]**

[IF S3=4, THANK AND TERMINATE. IF I1 ≠1, THANK AND TERMINATE.]

SURVEY QUESTIONS

1. How did you hear about the MySmart Display program? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES)

    Someone came to my door.. 1

    Community Event.. 2

    Mailed brochure 3

    Community Group (specify) 4

    Friend, Family 5

    Email 6

    On bill message 7

    Bill insert 8

    Bill message or bill insert (couldn't distinguish) 9

    Other (specify) 10

    Don't know .... 98**[SINGLE SELECTION]**

2. Why did you decide to request or receive a MySmart Display? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES)

    Save money on my electricity bill 1

    Better control over my electric usage 2

Protect the environment and reduce greenhouse gases 3

I like using new technologies 4

It was free 5

Other, specify 6

Don't know .... 98 **[SINGLE SELECTION]**

3.   When you received the display, did you expect to save money on your electric bill?

Yes ....1 **[CONTINUE TO Q4]**

 ....

No ....2 **[SKIP TO Q5]**

(DO NOT READ) Don't know ....98 **[SKIP TO Q5]**

(DO NOT READ) Refused ....99 **[SKIP TO Q5]**

[IF Q3=1, CONTINUE. OTHERWISE, SKIP TO Q5]

4.   On average, how much money did you expect to save on your electricity bill each month? (USE 98 FOR DON'T KNOW AND 99 FOR REFUSED.)

_____ [ENTER WHOLE DOLLAR AMOUNTS]

5.   Have you noticed a decrease in your electric bill since you began using the display?

Yes .... 1 **[CONTINUE TO Q6]**

No .... 2 **[SKIP TO Q7]**

Too soon to tell .... 3 **[SKIP TO Q7]**

(DO NOT READ) Don't Know .... 98 **[SKIP TO Q7]**

(DO NOT READ) Refused .... 99 **[SKIP TO Q7]**

[IF Q5=2,3, 98 or 99, SKIP TO Q7. OTHERWISE, CONTINUE.]

6.   How much has your monthly bill decreased? (USE 98 FOR DON'T KNOW AND 99 FOR REFUSED. CLARIFY IF NEEDED, DECREASE IS AVERAGE DECREASE IN A MONTH)

_____ [ENTER WHOLE DOLLAR AMOUNTS]

7.   Since you began using your display, do you feel you have more, less, or the same amount of control over your energy use?

More control 1

Less control 2

The same amount of control 3

(DO NOT READ) Don't Know 98

8.   How comfortable are you in using your display to see all the information that is available on it? Do you … (READ LIST)?

Feel very comfortable 1

Feel somewhat comfortable 2

Don't feel comfortable 3

(DO NOT READ) Don't know 98

Now I would like you to rate the usefulness of some MySmart Display features. For each feature, please tell me if you find the feature Very Useful, Somewhat Useful, or Not Very Useful.

[RANDOMIZE LIST]
How would you rate the usefulness of the [INSERT FEATURE] feature? Would you say it is … (READ LIST)

	Very Useful	Somewhat Useful	Not Very Useful	(DO NOT READ) Don't Know
9) Daily cost	3	2	1	98
10) Daily consumption	3	2	1	98
11) Alerts	3	2	1	98
12) Billing detail	3	2	1	98
13) Estimated bill	3	2	1	98

14.   How would you rate the accuracy of the display's estimated bill amount? Would you say it is … (READ LIST)?

Very accurate 4
Somewhat accurate 3
Somewhat inaccurate... 2
Very inaccurate.. 1
(DO NOT READ) Don't know 98
(DO NOT READ) Refused 99

15.   How much do you think you know about being energy efficient in your home? Would you say you… (READ LIST. ACCEPT ONE)?

don't know much about being energy efficient in your home 1

know a little bit about being energy efficient in your home 2

know quite a lot about being energy efficient in your home 3

know everything you need to know about being energy
efficient in your home 4

(DO NOT READ) Don't know 98

16.   Since you began using the MySmart display, what **additional** steps have you taken to reduce your electricity use? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.)

Turn air conditioning down 1
Turn air conditioning down when I leave home 2
Turn air conditioning off 3
Turn lights off 4
Turn TV(s) off 5
Turn computer off 6
Turn printer off 7
Unplug chargers for phones and other devices 8
Shut down or "sleep" option for electronics when not in use 9
Don't run electric dryer 10
Don't wash clothes 11
Line dry washed clothing 12
Lower water heater temperature 13
Use only warm (or cold) water for washing clothes 14
Don't cook on electric stove/oven 15
Had my home weatherized 16
Other, specify 17
Don't know .... 98**[SINGLE SELECTION]**
None .... 18**[SINGLE SELECTION]**

17.   When you first signed up to receive the display, did you have any concerns about your participation in the program? (DO NOT READ LIST. ACCEPT MULTIPLE RESPONSES.)

I don't/didn't have any concerns .... 1 **[SINGLE SELECTION]**
It will/would be hard to understand 2
It will/would requires too much time to operate 3
It will/would be difficult to use 4
My utility bill will/would go up 5
I will/would not realize any benefits from participating 6
The utility will/would have too much information about my
personal information or habits 7

The utility will/could share information about my personal

information or habits 8

Other, specify 9

Don't know .... 98 **[SINGLE**

SELECTION]

[FOR Q17=10, RECODE TO Q17=1]

18.   Based on your original expectations, how satisfied are you with the display so far? Are you…
(READ LIST. SELECT ONE)?

Completely satisfied 5

Somewhat satisfied 4

Neither satisfied nor dissatisfied 3

Somewhat dissatisfied... 2

Completely dissatisfied... 1

(DO NOT READ) Refused 99

(DO NOT READ) Don't know 98

[IF Q18 = 1 or 2, CONTINUE TO 18B, OTHERWISE SKIP TO Q19]

18B. Why are you dissatisfied with the display? **[RECORD VERBATIM]**

19.   Based on your experience with the MySmart Display so far, would you say your satisfaction
with KCP&L has… (READ LIST)?

Increased 1

Stayed the same.. 2

Decreased 3

(DO NOT READ) Don't know 98

(DO NOT READ) Refused 99

TOU (TIME OF USE) QUESTIONS

20.   Are you on KCP&L's Time of Use rate plan? (INTERVIEWER: IF RESPONDENT ASKS WHAT
THE TIME OF USE RATE PLAN IS, USE THIS PAT RESPONSE: "THE TIME OF USE RATE
PLAN OFFERS LOWER COST ENERGY RATES DURING OFF-PEAK HOURS DURING THE
MONTHS OF MAY TO SEPTEMBER.")

Yes..1

No..2 **[SKIP TO Q26]**

Don't know ....98 **[SKIP TO Q26]**

Refused ....99 **[SKIP TO Q26]**

[IF Q20=1, CONTINUE. OTHERWISE, SKIP TO Q26]

TIME INTRO. Now I would like you to think about changes in your electric usage since joining the Time of Use rate plan. For each time period I read, please tell me if you are using less electricity during this period, there is no change, or you are using more electricity during this period.

From the hours of [INSERT TIME PERIOD], would you say …?

	You are using **LESS** electricity during this time period	There is **NO CHANGE** in your electric usage during this time period	You are using **MORE** electricity during this time period	(DO NOT READ) Don't Know
21) 7am to 11am	3	2	1	98
22) 11am to 3pm	3	2	1	98
23) 3pm to 7pm	3	2	1	98
24) 7pm to 11pm	3	2	1	98

25.   Based on your original expectations, how satisfied are you with the Time of Use ~~TOU (or Time of Use)~~ rate plan so far? Are you… (READ LIST. SELECT ONE)?

    Completely satisfied 5
    Somewhat satisfied 4
    Neither satisfied nor dissatisfied 3
    Somewhat dissatisfied 2
    Completely dissatisfied 1
    (DO NOT READ) Refused 99
    (DO NOT READ) Don't know 98

PORTAL QUESTIONS

26.   Do you have an ID and password that allows you to view your electric usage through KCP&L's MySmart Portal? (INTERVIEWER: IF RESPONDENT ASKS WHAT THE MY SMART PORTAL IS, USE THIS PAT RESPONSE: "MYSMART PORTAL IS AN ONLINE FEATURE ACCESSED FROM THE KCP&L PAYMENT WEBSITE. WITH MYSMART PORTAL, YOU CAN VIEW YOUR ESTIMATED MONTHLY BILL, SET ENERGY SAVINGS GOALS, GET ENERGY SAVING TIPS, AND COMPARE YOUR ENERGY USAGE COMPARED TO OTHER HOMES IN YOUR COMMUNITY.")

    Yes 1
    No ....2 **[SKIP TO Q37]**
    Don't know ....98 **[SKIP TO Q37]**
    Refused ....99 **[SKIP TO Q37]**

27. How often have you looked at the MySmart Portal in the last month? (DO NOT READ LIST. ACCEPT SINGLE RESPONSE.)

> Just once 1
>
> Two to five times...2
>
> Six to 15 times 3
>
> 16 times or more...4
>
> Zero/None 5
>
> Don't know ....98 **[SKIP TO Q37]**
>
> Refused ....99 **[SKIP TO Q37]**

[IF Q27=5, CONTINUE. IF Q27=1-4, SKIP TO Q28. IF Q27=98 OR 99, SKIP TO Q37]

27a.   Have you ever used the MySmart Portal?

> Yes 1
>
> No..2 **[SKIP TO Q37]**

28.   What actions do you typically take when you use the portal?

> **[RECORD VERBATIM]**

FEATURE INTRO. Now I would like you to rate the usefulness of some MySmart Portal features. For each feature, please tell me if you think it is Very Useful, Somewhat Useful, or Not Very Useful.

[RANDOMIZE LIST]
For the feature [INSERT FEATURE], would you say it is very useful, somewhat useful, or not very useful?

	Very Useful	Somewhat Useful	Not Very Useful	(DO NOT READ) Don't Know
29) Energy-Saving Tips	3	2	1	98
30) Energy Expert	3	2	1	98
31) Set an energy savings goal	3	2	1	98
32) Bill estimate	3	2	1	98
33) Amount of bill to date	3	2	1	98
34) Hourly energy usage charts	3	2	1	98

35) MySmart Portal in general	3	2	1	98

36.   Based on your original expectations, how satisfied are you with the MySmart Portal so far? Are you… (READ LIST. SELECT ONE)?

                Completely satisfied 5
                Somewhat satisfied 4
                Neither satisfied nor dissatisfied 3
                Somewhat dissatisfied 2
                Completely dissatisfied 1
                (DO NOT READ) Refused 99
                (DO NOT READ) Don't know 98

[IF Q36 = 1 or 2, CONTINUE, OTHERWISE SKIP TO Q37]

36B.   Why are you dissatisfied with the MySmart Portal?
                [RECORD VERBATIM]

SMARTGRID PROJECT
In addition to introducing new technologies to the SmartGrid demonstration area, KCP&L has partnered with local businesses and organizations to help with economic development. In doing so, KCP&L has been able to hire project leads and installers that live and work within the local community. KCP&L also opened a dedicated SmartGrid office at 4600 Paseo that allows customers to pick-up SmartGrid products and get additional information from a live person. This is all part of KCP&L's commitment to the SGDPmartGrid demonstration project and its customers in this area.

37.   How aware were you of KCP&L's involvement in the SmartGrid project that I just described? Were you… (READ LIST. SELECT ONE)?

                Completely aware 5
                Somewhat aware 4
                Neither aware nor unaware 3
                Somewhat unaware 2
                Completely unaware 1
                (DO NOT READ) Refused 99
                (DO NOT READ) Don't know 98

38.   How important is it to you that KCP&L provides these additional benefits to the customers in the SmartGrid demonstration area? Is it… (READ LIST. SELECT ONE)?

                Extremely important 5
                Somewhat important 4
                Neither important nor unimportant 3
                Somewhat unimportant 2
                Extremely unimportant 1
                (DO NOT READ) Refused 99

(DO NOT READ) Don't know 98

39.   Based on your participation in KCP&L's SmartGrid program so far, how satisfied are you with KCP&L? Are you… (READ LIST. SELECT ONE)?
Completely satisfied 5
Somewhat satisfied 4
Neither satisfied nor dissatisfied 3
Somewhat dissatisfied.. 2
Completely dissatisfied 1
(DO NOT READ) Refused 99
(DO NOT READ) Don't know 98

40.   Do you have any suggestions on ways that KCP&L could improve the program?
[RECORD VERBATIM]
[PROGRAMMER: ALLOW A NO COMMENT CHECK BOX.]

41.   Do you have any other comments on the program as you've experienced it so far?
[RECORD VERBATIM]
[PROGRAMMER: ALLOW A NO COMMENT CHECK BOX.]

42.   What is the highest level of education completed by any head of household in the home? (DO NOT READ LIST. SELECT ONE)
Elementary (grades 1-8) 6
Some high school (grades 9-12)... 5
High school graduate 4
Some college/trade/vocational school 3
College graduate 2
Postgraduate college... 1
(DO NOT READ) Don't know 98
(DO NOT READ) Refused 99

43.   Please stop me when I read your age range. Are you…(READ LIST)?

Under 21 years old 1
 21 – 29 2
 30 – 39 3
40 – 49 4
50 – 64 5
65 years old or older 6
Don't Know (DO NOT READ)...98
Refused (DO NOT READ) 99

44. (RECORD GENDER. VERIFY, IF NECESSARY.)
Male 1

Female 2

Refused3

45. What kind of home do you live in? [READ LIST. ACCEPT SINGLE RESPONSE]

Single-family home 1

Single family attached, such as a townhouse 2

Multi-family home, such as a duplex, apartment, or condo 3

Mobile home 4

Other (Specify) 5

Don't Know (DO NOT READ)...98

Refused (DO NOT READ) 99

46.   Do you own or rent your residence?

Own 1

Rent 2

Other (Specify) 3

Don't Know 98

Refused 99

CLOSING: Those are all of the questions I have for you today. Thank you very much for your time.