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December 23, 2015

Neysa Thomas
Acting Executive Director
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, Kansas 66604

RE: Docket No. 15-SPEE-357-TAR
Southern Pioneer Peak Time Rebate Pilot Report

Dear Ms. Thomas:

On February 16, 2015, Southern Pioneer Electric Company ("Southern Pioneer") filed an Application in Docket No. 15-SPEE-357-TAR ("Docket 15-357") with the State Corporation Commission of the State of Kansas ("Commission" of "KCC Staff") seeking approval of a Demand Response Peak Time Rebate Pilot Program ("DR-PTRPP").[1] On February 19, 2015, the Citizens' Utility Ratepayer Board ("CURB") filed its Petition to Intervene, citing its statutory authority to represent residential and small commercial ratepayers.[2] On March 3, 2015, the Commission granted CURB's petition to intervene, and also issued a suspension, protective, and discovery order in Docket 15-357.[3]

On June 10, 2015, KCC Staff filed its Report and Recommendation ("R&R").[4] KCC Staff's R&R recommended that the Commission approve Southern Pioneer's DR-PTRPP with slight modifications to the proposed effective date.[5] On June 12, 2015, CURB submitted its response to Staff's R&R.[6] CURB, though disagreeing with Staff's assessment of costs and benefits, agreed that useful information could be gathered from Southern Pioneer's DR-PTRPP.[7] CURB recommended that Southern Pioneer and Mid-Kansas Electric Company, LLC ("Mid-Kansas") be required to submit a report in Docket 15-357 upon the conclusion of Southern Pioneer's DR-PTRPP.[8]

On June 25, 2015, the Commission issued its final Order Granting Application in Docket 15-357, accepting KCC Staff's and CURB's recommendations as contained in the KCC Staff's R&R and CURB's Response to KCC Staff's R&R, and directed Southern Pioneer to file, no later than

[1] Application of Southern Pioneer Electric Company for Approval of the Demand Response Peak Time Rebate Pilot Program (Feb. 16, 2015) (Application).
[2] Petition to Intervene, ¶ 5 (Feb. 19, 2015).
[3] *See* Order Granting Intervention, Suspension Order, Protective Order and Discovery Order (Mar. 3, 2015).
[4] Staff's Report and Recommendation (Jun. 10, 2015) (R&R).
[5] *See id.* at pp. 4-5.
[6] CURB's Response to Staff's Report and Recommendation (Jun. 12, 2015) (CURB Response).
[7] *See id.* at pp. 1-2.
[8] *See id.* at p. 2.

December 31, 2015 after the conclusion of the DR-PTRPP August 31, 2015, a report summarizing the results.

Enclosed hereafter is a summary of the filing requirements as outlined in the Commission's Order Granting Application in Docket 15-357 and a brief summary of the results of the DR-PTRPP.

Filing Requirements

CURB recommended that the Commission require Mid-Kansas and Southern Pioneer to submit a report, upon the expiration of Southern Pioneer's DR-PTRPP, that included specifically:[9]

a. The Measurement and Verification ("M&V") completed by Power Systems Engineering, Inc. ("PSE");
b. A breakdown of all actual costs associated with the program, including program administrative fees, rebates provided, mailing and communication expenses, internal labor costs, and any other costs related to the program incurred by Southern Pioneer and Mid-Kansas;
c. A detailed description of the number of program participants for each of Mid-Kansas' participating utilities;
d. The actual costs of the program incurred by Mid-Kansas and the amounts passed on to each of Mid-Kansas' participating utilities through the energy cost adjustment;
e. A report summarizing the results of the end-of-pilot survey provided by the participants in the program; and
f. A post-pilot benefit-cost analysis.[10]

Brief Summary

MKEC and Sunflower partnered to fund six PTR pilots for their distribution member-utilities in the summer months of June, July, and August of 2015. One of these six pilots is the Southern Pioneer DR-PTRPP. The other five pilots consist of two other residential PTR pilots, an irrigation PTR pilot, and two small commercial and industrial (C&I) pilots.

Power System Engineering, Inc. (PSE) combined the three residential PTR pilots and created six different test groups. These six test groups were randomly chosen, with the caveat that each test group included a nearly equal number of participants from each pilot. The six test groups enabled called events to be rotated between the groups. This provided an increased number of event days and provided the measurement and verification (M&V) study to always have a "control" group for every event.

The three residential pilots all had the same rebate payments of $0.75 per kilowatt hour (kWh) reduced. Recruitment was also conducted in a similar fashion, with each pilot soliciting 1,000 randomly chosen residential consumers. One exception is that Southern Pioneer participants were limited to 100 participants required by the Commission's Order in the 15-357 Docket.

[9] CURB Response, pp. 1-2.
[10] *Id.* at p. 2.

The table below provides the original cost-benefit tests and the revised cost-benefit tests. For more details on the construction of these tests please see PSE's original report, "Peak Time Rebate: Pilot Design" (Exhibit 1).

Cost-Benefit Tests

Test	Original Result	Revised Result
RIM	2.5	2.2
Utility/PAT	2.5	2.2
TRC	6.8	4.7
Participant	Unlimited	Unlimited

As the table above shows, the DR-PTRPP's estimated benefits far outweigh its costs from all of the evaluated perspectives.

Furthermore and last, attached hereto, as requested by CURB and directed by Commission order in Docket 15-357, and to comply with the requirements of the Commission-approved DR-PTRPP is Southern Pioneer's detailed DR-PTRPP Report as prepared by PSE, Southern Pioneer's and Mid-Kansas' consultant in Docket 15-357.

As always, Southern Pioneer looks forward to the Commission's acceptance of this filing and report. Should KCC Staff or you have questions regarding this filing or request additional information, please do not hesitate to contact me at 620-424-5211 or rmagnison@pioneerelectric.coop.

Regards,

Randall D. Magnison
Executive Vice President – Assistant CEO

cc: Power System Engineering, Inc.
Mid-Kansas Electric Company, LLC
Lindsay Shepard

Power System Engineering, Inc.

Full-service consultants

2015 Peak Time Rebate Pilot Report

Prepared for:

Southern Pioneer Electric Company

Prepared by:

Power System Engineering, Inc.

December 23, 2015

2015 Peak Time Rebate Pilot Report
for
Southern Pioneer Electric Company

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1 Introduction

On February 16, 2015, Southern Pioneer Electric Company (Southern Pioneer) filed an Application with the State Corporation Commission of the State of Kansas (the Commission) seeking approval of a Demand Response Peak Time Rebate Pilot Program (DR-PTRPP) in the Docket No. 15-SPEE-357-TAR (15-357 Docket). On June 25, 2015 the Commission approved the DR-PTRPP. In conjunction with Southern Pioneer's DR-PTRPP, Mid-Kansas Electric Company (MKEC) and Sunflower Electric Power Corporation (Sunflower) together also funded five other Peak Time Rebate (PTR) pilots for the other distribution member-utilities. This report provides the information required from Southern Pioneer by the Commission's Order Granting Application issued in the 15-357 Docket. It also includes additional information that the Commission and stakeholders may find useful.

PTR program offers customers a financial reward for reducing their electricity use during specific "called" peak event hours. Customers are notified of peak event hours either through text messaging or e-mail notices. It is then up to the participants to decide whether, and how much, to react to a called peak event by curtailing their usage as desired. In other words, this PTR program is entirely voluntary in nature, both in signing up and in reducing electricity use during specific events.

Additionally, electricity rates remain unchanged; therefore, if customers do not reduce usage during peak events, their bills stay as they were before the program was enacted. However, if customers do curtail their electricity use during the designated peak event hours, they benefit by receiving a rebate check.

The summary table of Southern Pioneer's DR-PTRPP is provided below.

Table 1-1 Summary of Southern Pioneer PTR Pilot

Program Detail	
Rebate per kWh reduced	$0.75 per kWh reduced
Pilot participation	100 residential customers
Baseline method	PSE regression models using relevant variables
Communication of Peak Events	Via E-mail or text message at the discretion of participant
Recruitment Strategy	Direct mail to 1,000 residential members, first 100 placed in pilot.
Rebate Checks	Sent at the end of the summer 2015 after pilot was completed.

1.1 Description of All PTR Pilots Funded by MKEC and Sunflower

MKEC and Sunflower partnered to fund six PTR pilots for their distribution member-utilities in the summer months of June, July, and August of 2015. One of these six pilots is the Southern Pioneer DR-PTRPP. The other five pilots consist of two other residential PTR pilots, an irrigation PTR pilot, and two small commercial and industrial (C&I) pilots.

Power System Engineering, Inc. (PSE) combined the three residential PTR pilots and created six different test groups. These six test groups were randomly chosen, with the caveat that each test group included a nearly equal number of participants from each pilot. The six test groups enabled called events to be rotated between the groups. This provided an increased number of event days and provided the measurement and verification (M&V) study to always have a "control" group for every event.

The three residential pilots all had the same rebate payments of $0.75 per kilowatt hour (kWh) reduced. Recruitment was also conducted in a similar fashion, with each pilot soliciting 1,000 randomly chosen residential consumers. One exception is that Southern Pioneer participants were limited to 100 participants required by the Commission's Order in the 15-357 Docket.

The small C&I pilots were structured similarly to the residential PTR pilots. The same rebate amount of $0.75 per kWh reduced was offered. The numbers solicited were far lower than the residential pilots, however. C&I participants were also able to choose the event length duration. The choices were 2 hour events, 5 hours, 8 hours, or "unsure". If the participant chose "unsure" their events were rotated between the three other choices.

The irrigation pilot had a slightly different rebate structure. Irrigators were offered a $0.50 rebate per kWh reduced with a "bonus" of another $0.50 per kWh reduced if the irrigators responded to every called event by reduced load by at least 50% from the calculated baseline. Therefore, for irrigators that responded to every event they were paid $1.00 per kWh reduced. For irrigators only responding to some of the events a payment of $0.50 per kWh reduced was made. Similar to the small C&I pilot, the irrigators were able to choose event durations. The choices were 2 hours, 5 hours, 8 hours, and "unsure".

The participation numbers for the six pilots are provided in the table below.

Table 1-2 Participation in MKEC/Sunflower Pilots

PTR Pilot	Number of Participants
Southern Pioneers DR-PTRPP	100
Residential Pilot at Utility #2	176
Residential Pilot at Utility #3	142
Irrigation Pilot at Utility #4	9
C&I Pilot at Utility #2	14
C&I Pilot at Utility #3 (oil pump)	1

Events were determined and called by PSE based on weather and energy load conditions. For the residential pilots, event durations were between 2 and 6 hours in length. For any given called event, at least two of the six test groups were not notified so that these groups can serve as a "baseline" against which to compare the groups that were notified. All events were communicated using text messaging and/or e-mail, based on the preference indicated by participants. Events were either communicated the night prior to the event (around 5 or 6 p.m.), or the morning of the event (around 10 a.m.). A reminder text message and/or e-mail was sent approximately 20 minutes prior to the event start time.

The number of events and hours are detailed for the six residential test groups in the following table.[1]

Table 1-3 Number and Duration of Called Evenets

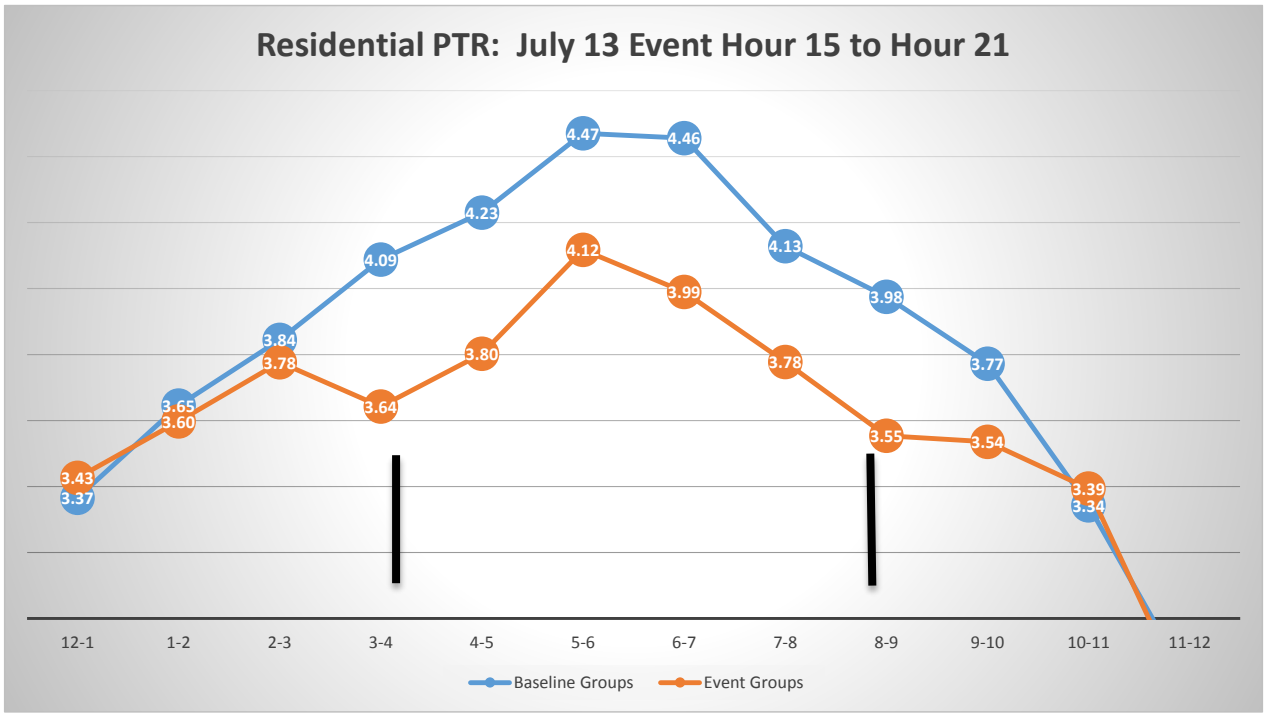
Event Detail for Participant Groups			
Participant Group	Summer 2015		
	Event Count	Total Hours	Avg Event Hours
R1	9	40	4.4
R2	9	40	4.4
R3	10	34	3.4
R4	10	34	3.4
R5	8	30	3.8
R6	8	30	3.8

The impact evaluation and M&V is conducted using econometric models. Looking at a graph of an event day can help show the impact of the program. Figure 1- shows the load profiles of an "event group" vs. a "baseline group" on July 13, 2015. July 13 was the day of the combined "peak" of the MKEC and Sunflower systems. On that day, two of the residential test groups were NOT notified of an event—we denote their average group load on that day as "Baseline Groups", and they are colored in blue. Four of the residential groups were notified of a six hour event beginning at 3:00 p.m. and ending at 9:00 p.m. The "Event Groups" are colored in orange.

As the graph shows, both the Baseline Groups and Event Groups had similar average energy usage prior to the event, and about two hours after the event (the Event Groups appear to have been slightly lower). During the event, the Event Group's average use per participant are around 0.4 kW below the Baseline Groups. The impact assessment found in the next chapter will provide further details, but overall, this graph clearly shows that there is a significant impact from the PTR events.

[1] Southern Pioneer participants were not contacted on the events prior to June 25, 2015 (the date of the Decision). Regarding Table 1-3, Southern Pioneer will have one fewer event, resulting in four fewer hours than the table shows.

Figure 1-4 Impact of PTR Event



2 Residential PTR Measurement and Verification Results

The M&V process was conducted by PSE, using interval hourly metering data provided by the member utilities. This interval data consisted of hourly energy usage for each participant in the pilots during June, July, and August.

PSE estimated econometric models that controlled for the specific weather, time of day, and day of week conditions. These models produced "baseline" usage for each participant, which gave us estimates of what they would have used in the absence of the program. One residential impact model that combined the three residential pilots was developed. However, a "Southern Pioneer DR-PTRPP-only model" was also produced to isolate the DR-PTRPP results from the other results.

2.1 Residential Pilot Impacts

The following impact evaluations are conducted using econometric models that control for a number of variables. Due to this, the impact estimates can be thought of as the reductions caused by the existence of the PTR program. These are not simple "before and after" estimates but rather "with and without" estimates that compare energy usage with the DR-PTRPP and comparing that to the estimate of the counterfactual of the participants not being on the PTR program.

The impacts of the residential program shown in Table 2-1 were estimated after combining all three pilot datasets into one. This enabled more variables to be included and tested within the pilot design. Event durations for the events lasted either 2 hours, 4 hours, or 6 hours. The average hourly demand impact per participant for all duration lengths was 0.31 kW. This is around an 8% reduction of energy use during called event hours.

Two-hour event durations had the largest average hourly energy reduction at 0.36 kW. However, there was only a minimal drop-off in energy reduction of 20% for the four- and six-hour events. Four-hour and six-hour events both had average reductions of 0.30 kW. The average participant reductions for the different duration times are presented in the table below.

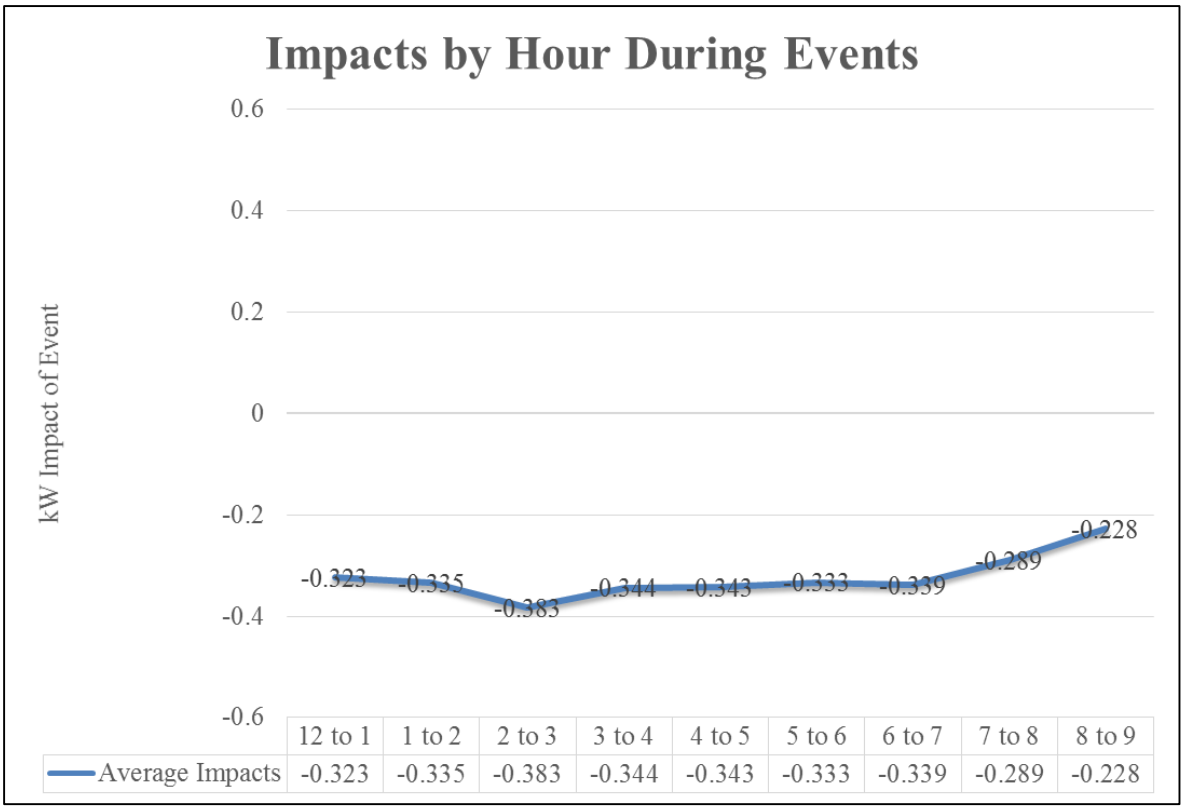
Table 2-1 Average Per Participant Impact by Duration of Event

Duration Hours	Average Impact
All Durations	**-0.31 kW**
2 hour	-0.36 kW
4 hour	-0.30 kW
6 hour	-0.30 kW

Impacts may not be uniform across all called hours. The pilot design included calling events at different times of day. This enabled PSE to test the different hour-by-hour reactions during hours in the early afternoon, evening, and later at night.

Impacts were fairly constant across the tested 12:00 to 9:00 time window. There does appear to be diminishing impacts in the last two hours of the night (7 to 8 and 8 to 9). The largest impacts are found between the hours of 2:00 and 5:00.

Figure 2-1 Impacts by Event Hour



For every event, each participant was given two notifications. The second notification was always approximately 20 minutes prior to the event beginning. For example, if the event began at 4:00 p.m., each participant received a reminder notification (through text message and/or e-mail based on their chosen preference) at 3:40 p.m. the day of the event.

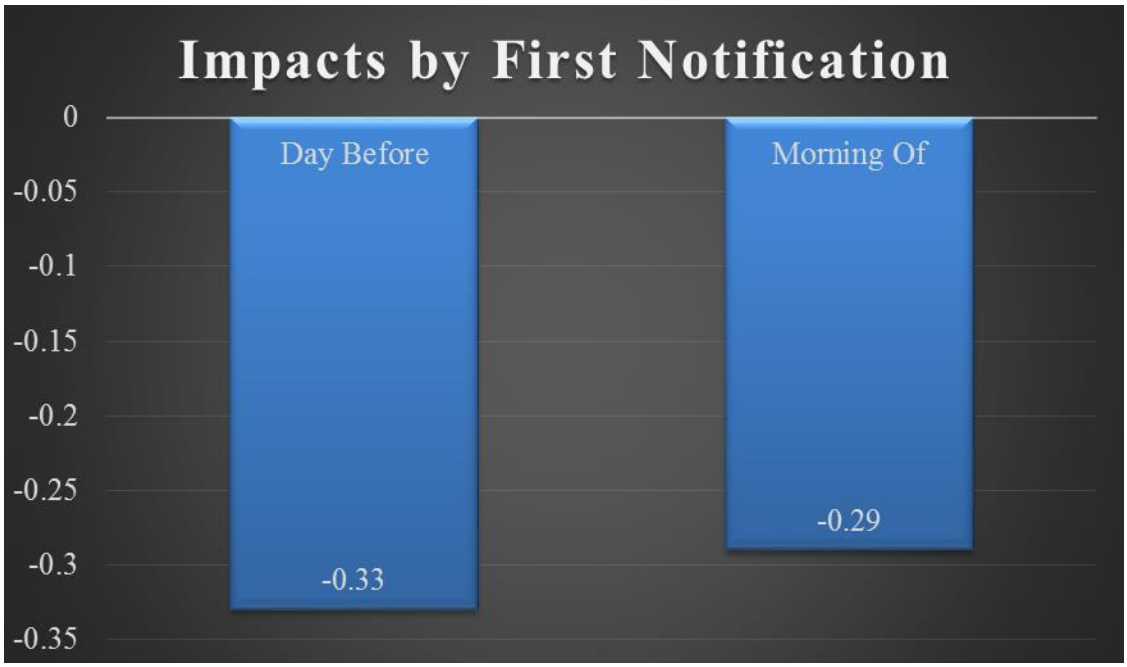
The first notification was intentionally varied between "Day Before" and "Morning Of" times. The "Day Before" notifications went out the evening before the event, usually around 5:00 or 6:00 p.m. For example, for an event on July 13, 2015 starting at 3:00 p.m., the first notification for Day Before groups would have occurred in the evening of July 12. The "Morning Of" notifications occurred at approximately 10:00 a.m. on the same day of the event.

To test the impact of the first notification time for some events, the six test groups were notified at different times (either Day Before, Morning Of, or not notified at all).[2] The impact differences between Day Before

[2] For every event, there was always at least one test group not notified at all. This provided a robust "baseline" for the impact modeling.

and Morning Of notification were relatively minimal. Participants notified the evening prior to the event had an average energy reduction of 0.33 kW per hour. Participants notified the morning of the event had an average energy reduction of 0.29 kW per hour.

Figure 2-2 Day Before vs. Morning Of Notification



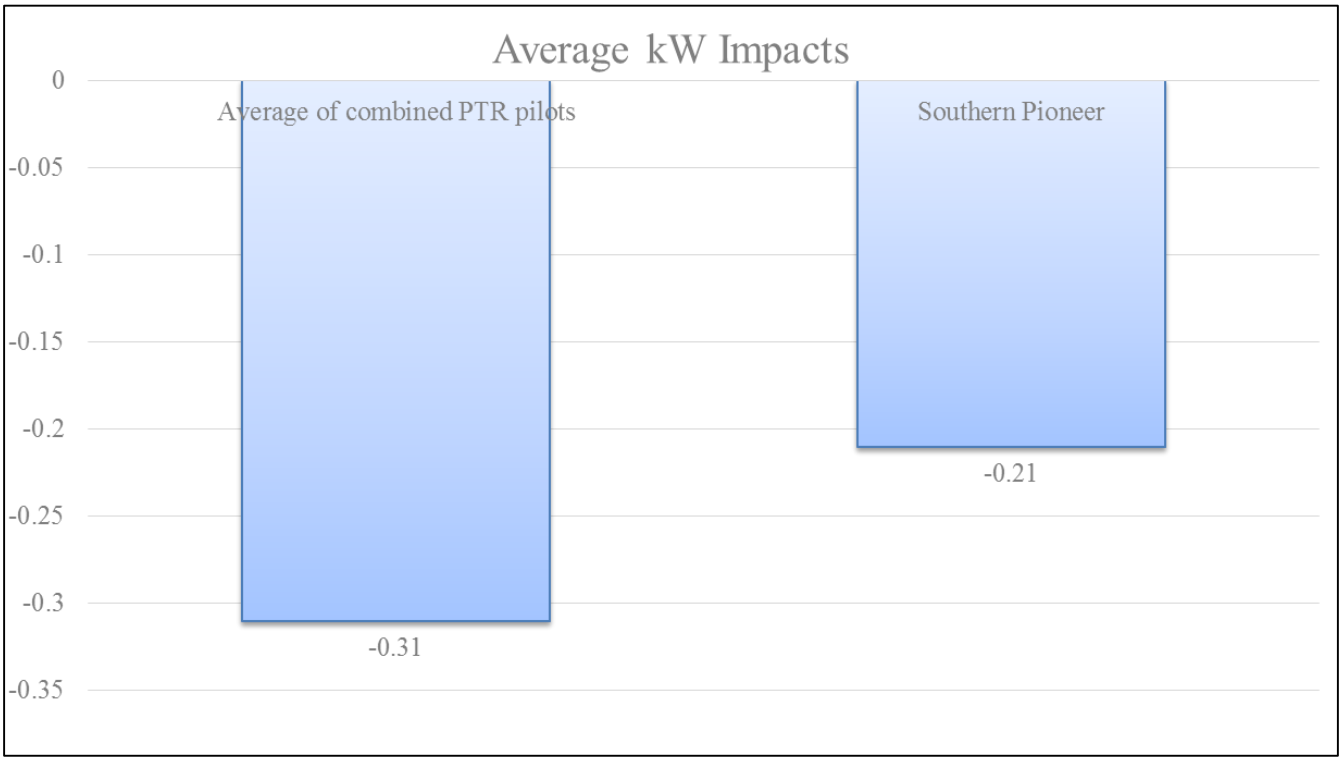
2.2 Southern Pioneer DR-PTRPP Impacts

The average hourly impacts of Southern Pioneer were also modeled separately from the other two residential PTR pilots. For the combined PTR pilots the average kW decrease was 0.31 kW. When isolated, Southern Pioneer's average kW decrease is measured at 0.21 kW. This is approximately 0.10 kW less than the average reaction across all programs.

PSE has not determined why Southern Pioneer experienced lower impacts relative to the other pilot utilities. Southern Pioneer participants were equally distributed amongst the six test groups, as were the participants of the other participating utilities.

The following graph displays the average impacts of the combined PTR pilots of -0.31 kW compared to the average impacts of Southern Pioneer's DR-PTRPP.

Figure 2-3 Southern Pioneer Impacts



3 Pilot Costs

The total pilot costs to MKEC came in a bit lower than the expected amount of $112,500. The program administration fees paid to PSE are $82,500. The rebates paid by MKEC and provided to the participants were lower than expected. We estimated rebate costs at $27,000 for MKEC, but the total rebate calculated amount is $10,571.13. MKEC mailing costs are estimated at $3,000.[3] Thus, MKEC total actual costs were $96,071.13.

Southern Pioneer will end up paying a portion of the MKEC costs through the energy cost adjustment (ECA). Southern Pioneer's current portion of the ECA is 34.3%.[4] This comes to a total of $32,952.40. Additionally, Southern Pioneer estimates their internal labor costs due to the pilot at $168. The sum of the MKEC costs passed on through the ECA and Southern Pioneer's internal labor costs are $33,120 ($32,952 + $168).

[3] All mailing costs were incurred by PSE with a project budget adder of $3,000 to cover the mailing costs. Therefore, mailing costs were not explicitly tracked but PSE's total project budget charged to MKEC is $82,500 plus $3,000 for a total of $85,500.

[4] See R&R p.2; Application pp. 6-7; Response to CURB data request No. 9 (April 8, 2015).

4 Cost Benefit Analysis

The cost-benefit detailed in Southern Pioneer's original application assumed a demand impact of 0.3 kW for each participant. The overall pilot that included other MKEC/Sunflower utilities substantiated that assumption with an evaluated impact of 0.31 kW. However, Southern Pioneer had a lower than average impact per participant at 0.21 kW.

Due to this lower than expected demand impact for Southern Pioneer, the cost-benefit tests have been revised downward from the original estimate. They remain strongly positive, however, and show strong potential value for a PTR program at Southern Pioneer.

The table below provides the original cost-benefit tests and the revised cost-benefit tests. For more details on the construction of these tests please see PSE's original report, "Peak Time Rebate: Pilot Design" (Exhibit 1).

Table 4-1 Cost-Benefit Tests

Test	Original Result	Revised Result
RIM	2.5	2.2
Utility/PAT	2.5	2.2
TRC	6.8	4.7
Participant	Unlimited	Unlimited

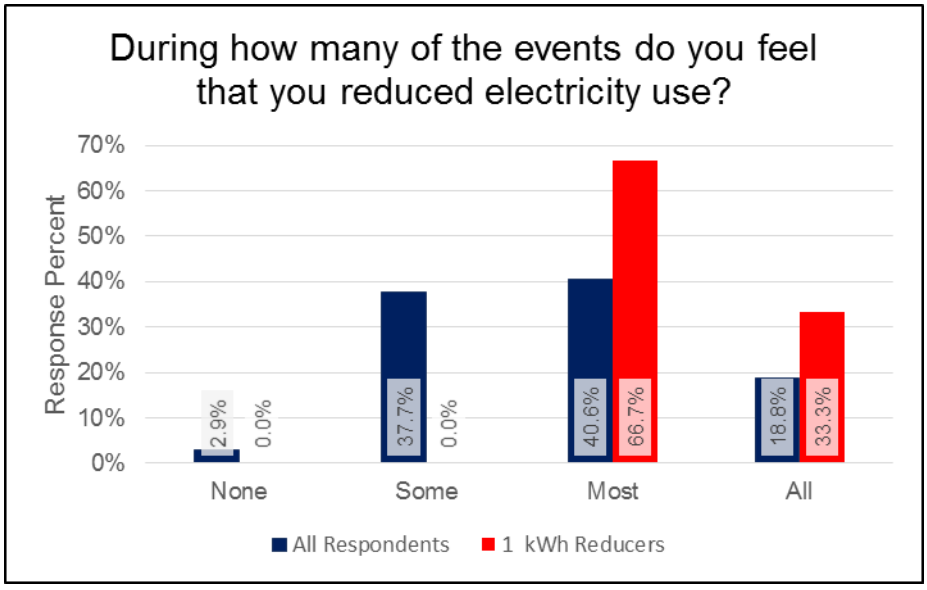
As the table above shows, the DR-PTRPP's estimated benefits far outweigh its costs from all of the evaluated perspectives. The full deployment of a PTR program would have net benefits to both participating and non-participating consumers.

5 Appendix: Summary of SPECo Post-Pilot Survey Responses

The survey responses are provided below. Overall, 72 out of the 100 participants responded to the survey. We have separated responses between the 69 participants that averaged less than a 1 kWh reduction per event hour and the 3 participants that provided over 1 kWh.

Question 1
During how many of the events do you feel that you reduced electricity use?

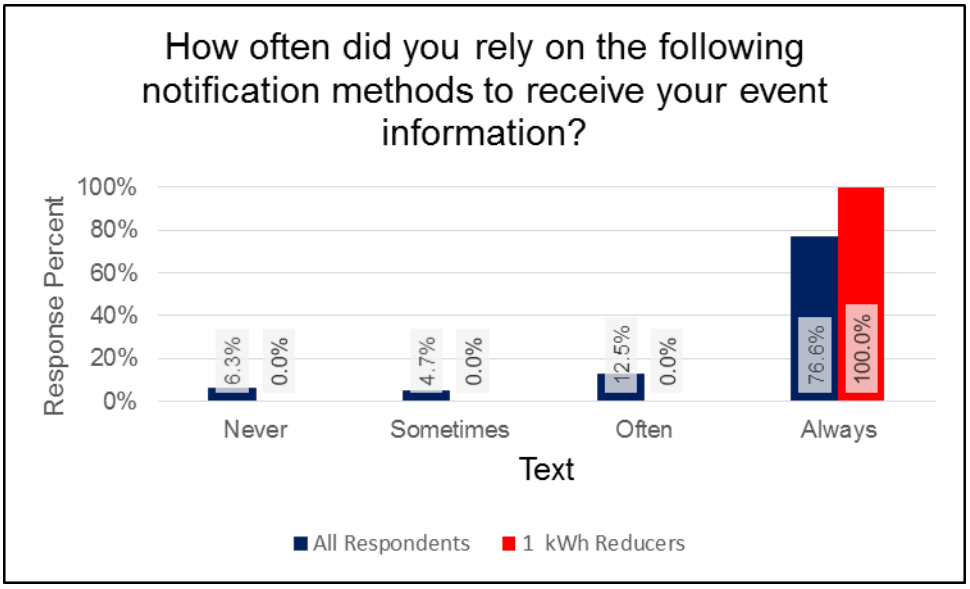
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
None	2	2.9%	0	0.0%
Some	26	37.7%	0	0.0%
Most	28	40.6%	2	66.7%
All	13	18.8%	1	33.3%
Total Responses	69	100.0%	3	100.0%
Missing Responses	0		0	
Percent Missing	0.0%		0.0%	



Question 2
How often did you rely on the following notification methods to receive your event information?

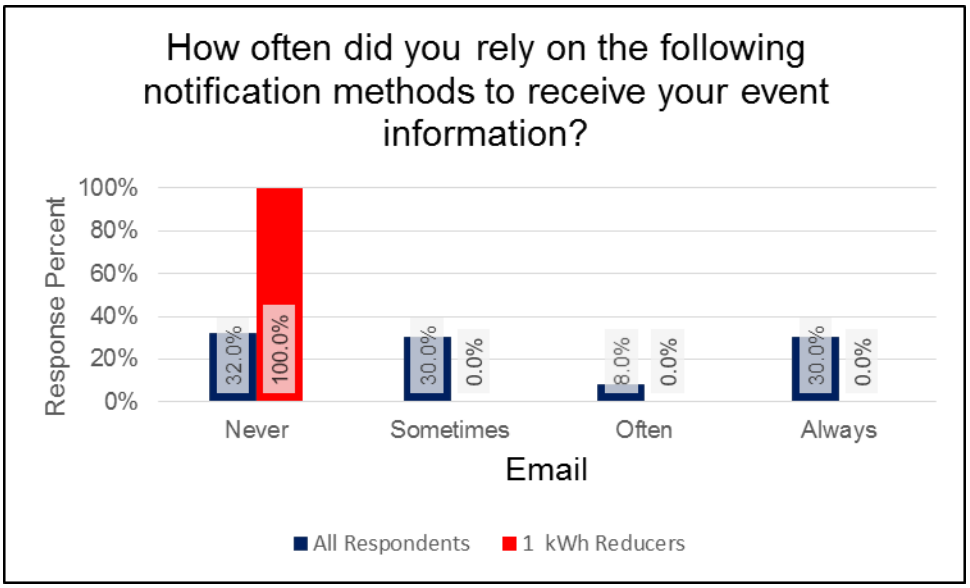
Text

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Never	4	6.3%	0	0.0%
Sometimes	3	4.7%	0	0.0%
Often	8	12.5%	0	0.0%
Always	49	76.6%	3	100.0%
Total Responses	64	100.0%	3	100.0%
Missing Responses	5		0	
Percent Missing	7.2%		0.0%	



Email

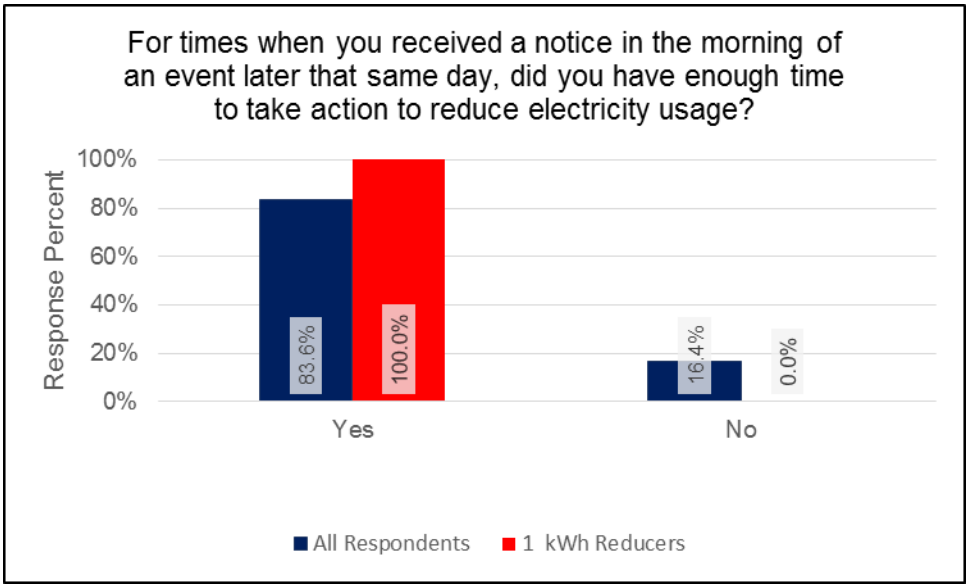
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Never	16	32.0%	1	100.0%
Sometimes	15	30.0%	0	0.0%
Often	4	8.0%	0	0.0%
Always	15	30.0%	0	0.0%
Total Responses	50	100.0%	1	100.0%
Missing Responses	19		2	
Percent Missing	27.5%		66.7%	


How often did you rely on the following notification methods to receive your event information?
Response Percent
100%
80%
60%
40%
20%
0%
32.0%
100.0%
30.0%
0.0%
8.0%
0.0%
30.0%
0.0%
Never
Sometimes
Often
Always
Email
All Respondents
1 kWh Reducers

Question 3

For times when you received a notice in the morning of an event later that same day, did you have enough time to take action to reduce electricity usage?

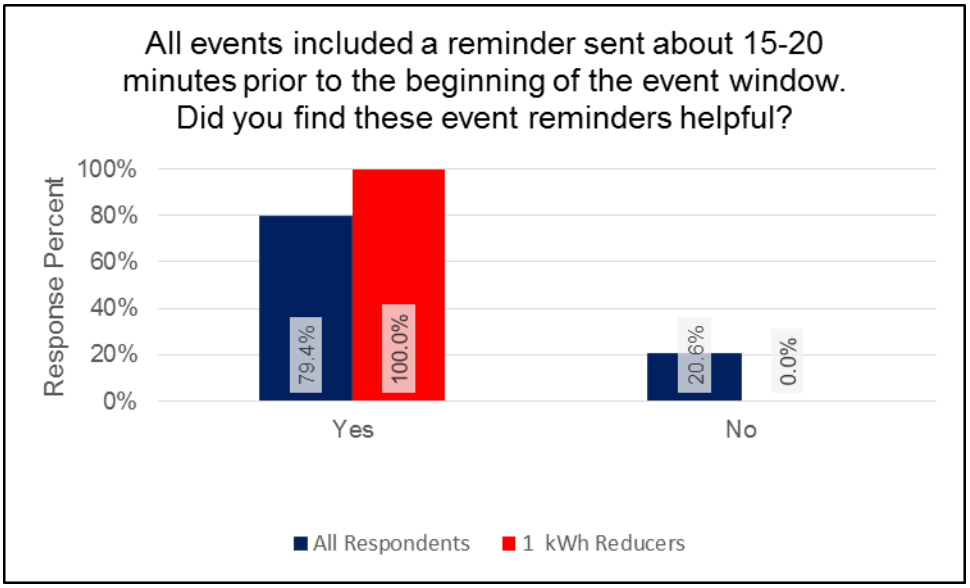
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes	56	83.6%	3	100.0%
No	11	16.4%	0	0.0%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



Question 4

All events included a reminder sent about 15-20 minutes prior to the beginning of the event window. Did you find these event reminders helpful?

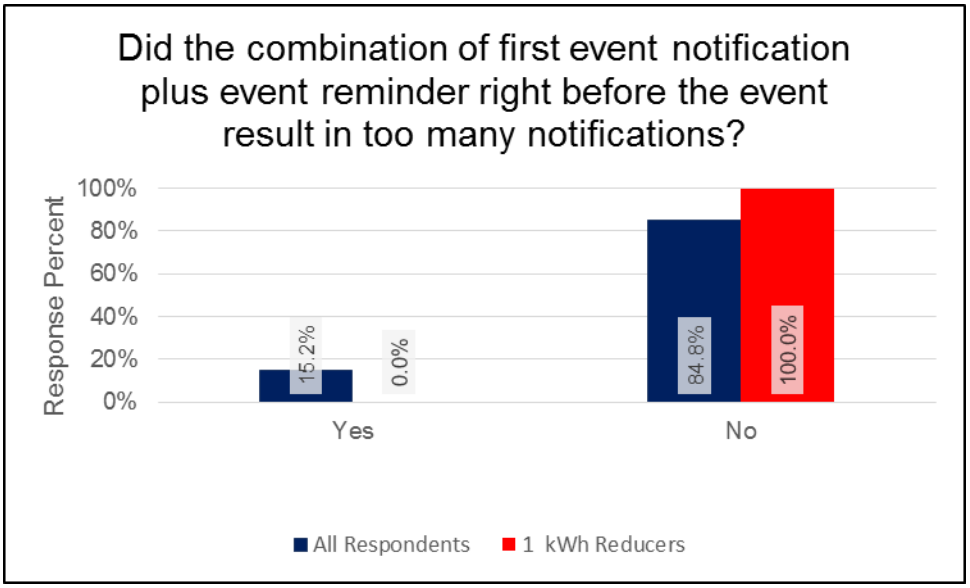
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes	54	79.4%	3	100.0%
No	14	20.6%	0	0.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	



Question 5

Did the combination of first event notification plus event reminder right before the event result in too many notifications?

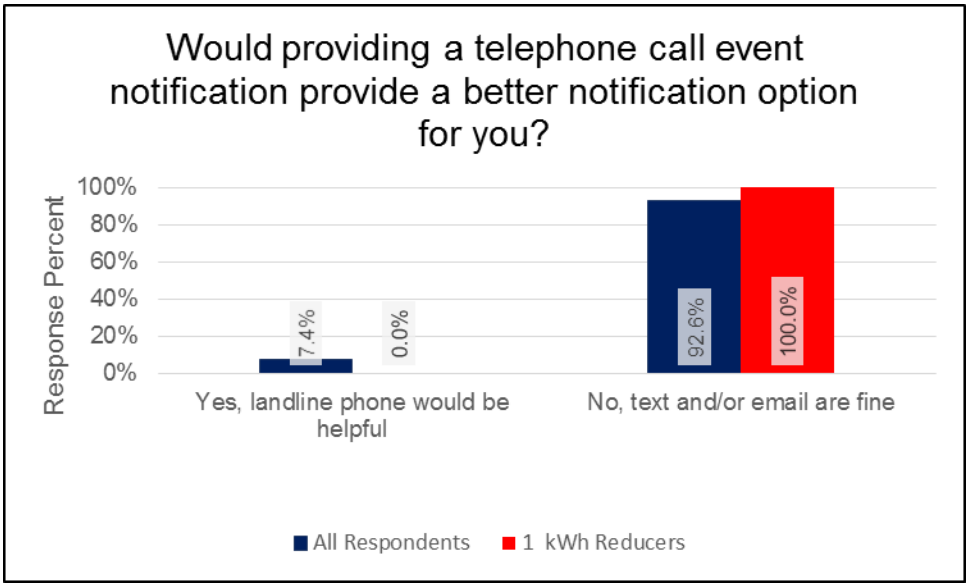
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes	10	15.2%	0	0.0%
No	56	84.8%	3	100.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



Question 6

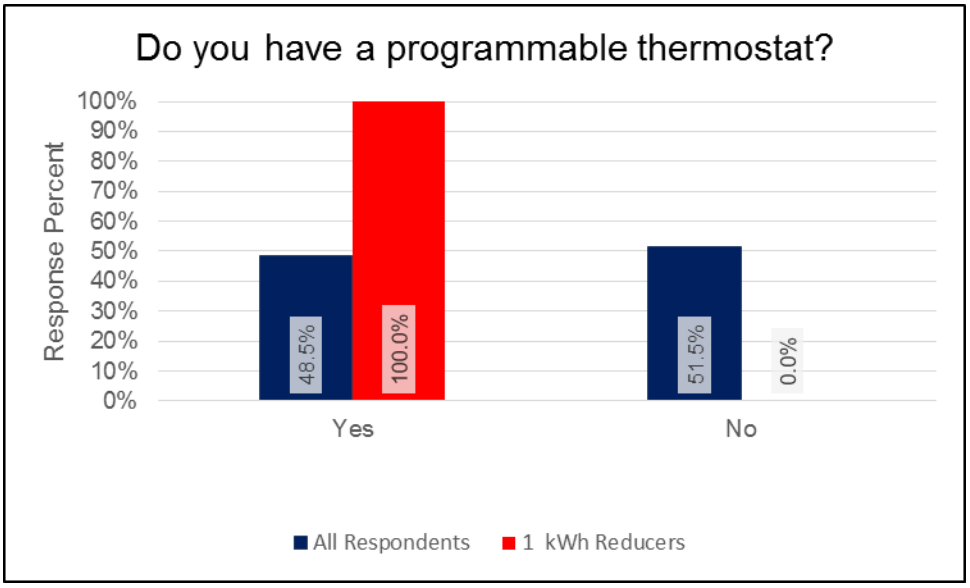
Would providing a telephone call event notification provide a better notification option for you?

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes, landline phone would be helpful	5	7.4%	0	0.0%
No, text and/or email are fine	63	92.6%	3	100.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	



Question 7
Do you have a programmable thermostat?

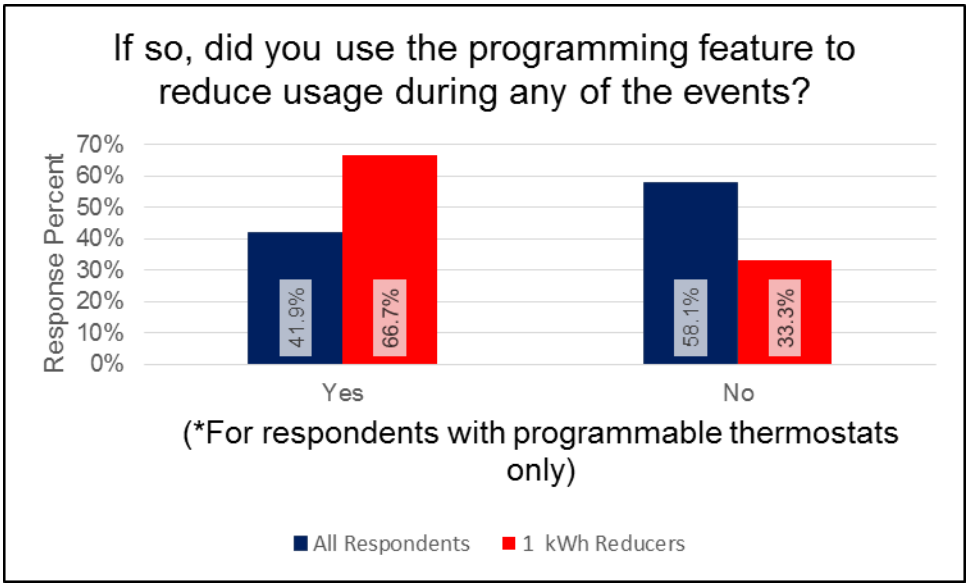
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes	32	48.5%	3	100.0%
No	34	51.5%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



Question 8

If so, did you use the programming feature to reduce usage during any of the events?

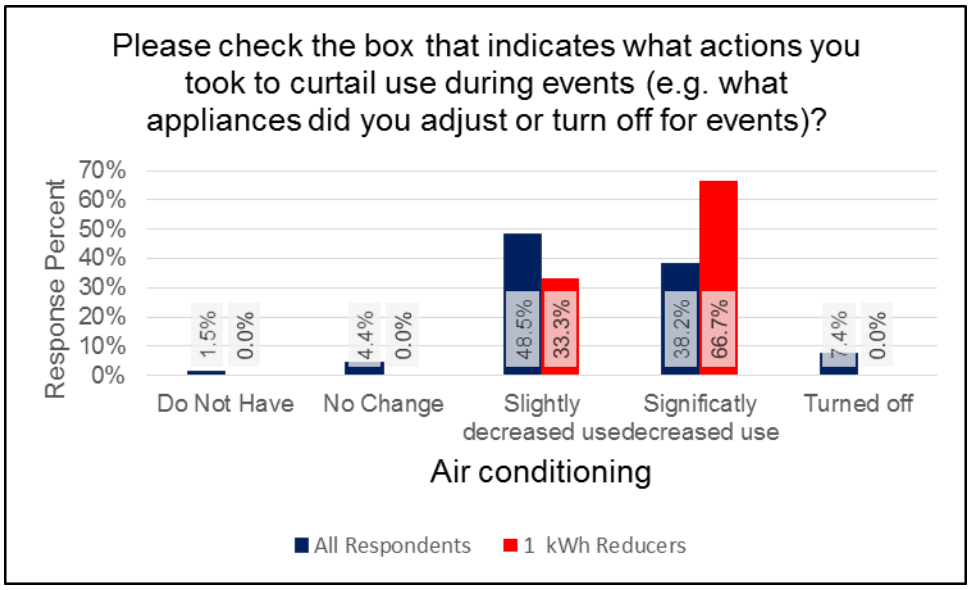
(*For respondents with programmable thermostats only)			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Yes	13	41.9%	2	66.7%
No	18	58.1%	1	33.3%
Total Responses	31	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	3.1%		0.0%	



Question 9
Please check the box that indicates what actions you took to curtail use during events (e.g. what appliances did you adjust or turn off for events)?

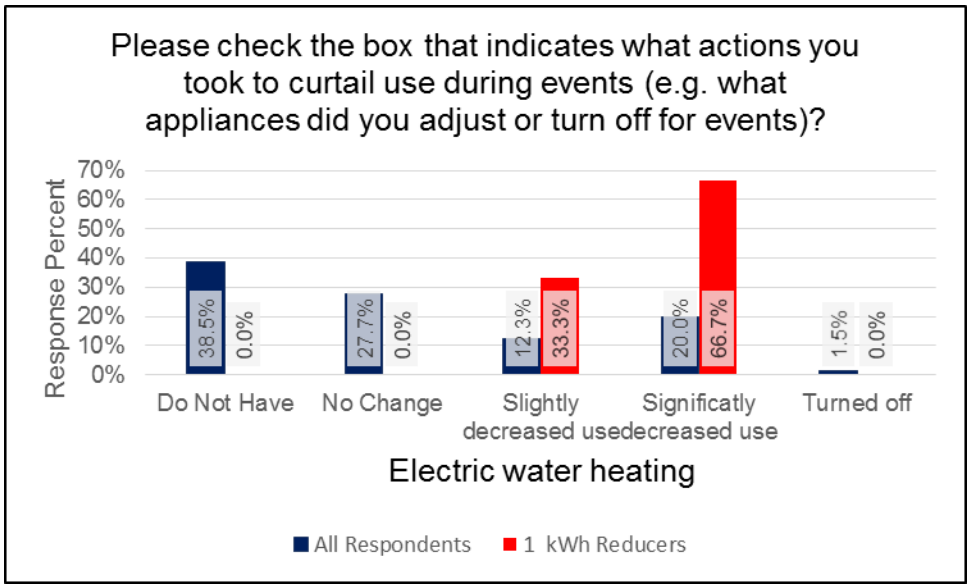
Air conditioning

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	1	1.5%	0	0.0%
No Change	3	4.4%	0	0.0%
Slightly decreased use	33	48.5%	1	33.3%
Significatly decreased use	26	38.2%	2	66.7%
Turned off	5	7.4%	0	0.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	



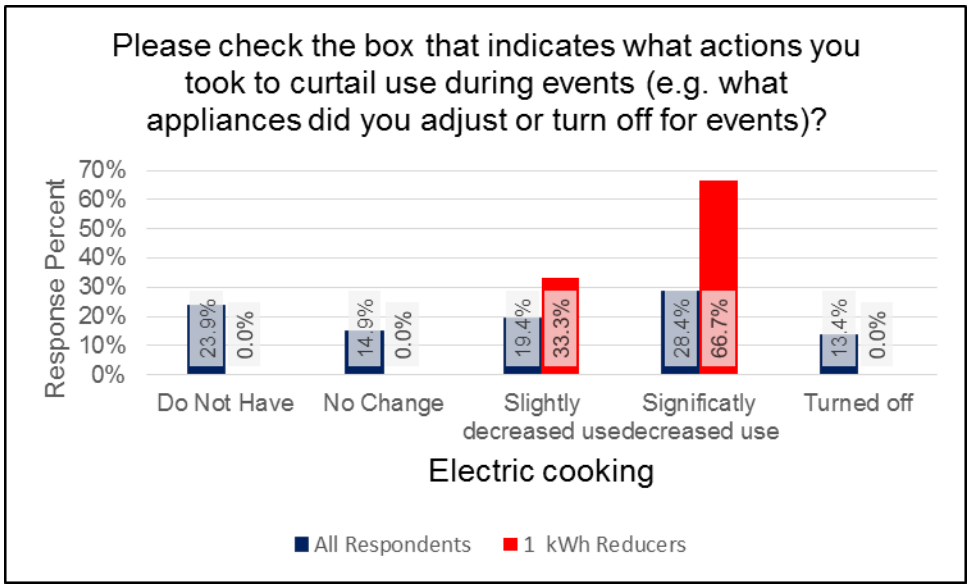
Electric water heating

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	25	38.5%	0	0.0%
No Change	18	27.7%	0	0.0%
Slightly decreased use	8	12.3%	1	33.3%
Significatly decreased use	13	20.0%	2	66.7%
Turned off	1	1.5%	0	0.0%
Total Responses	65	100.0%	3	100.0%
Missing Responses	4		0	
Percent Missing	5.8%		0.0%	



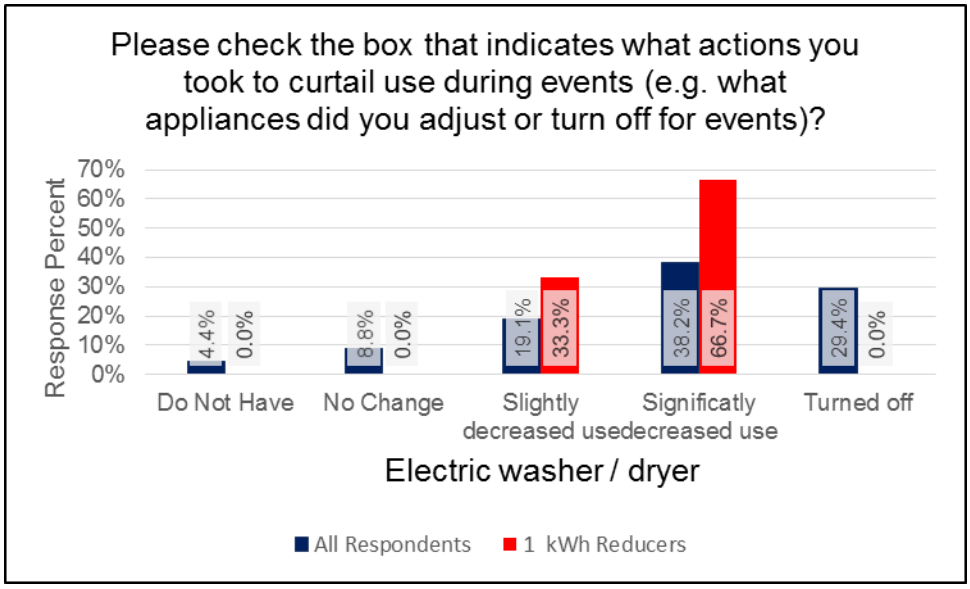
Electric cooking

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	16	23.9%	0	0.0%
No Change	10	14.9%	0	0.0%
Slightly decreased use	13	19.4%	1	33.3%
Significatly decreased use	19	28.4%	2	66.7%
Turned off	9	13.4%	0	0.0%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



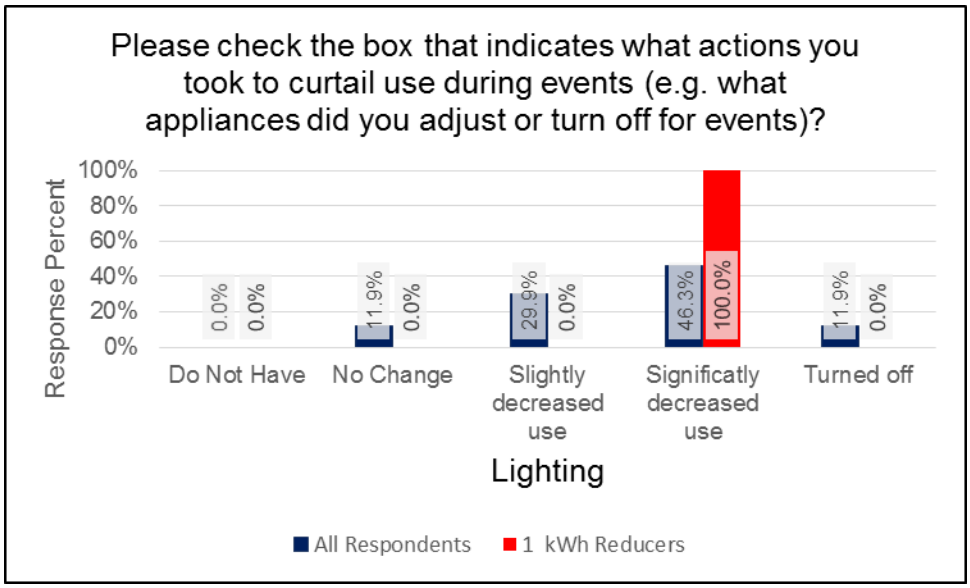
Electric washer / dryer

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	3	4.4%	0	0.0%
No Change	6	8.8%	0	0.0%
Slightly decreased use	13	19.1%	1	33.3%
Significatly decreased use	26	38.2%	2	66.7%
Turned off	20	29.4%	0	0.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	



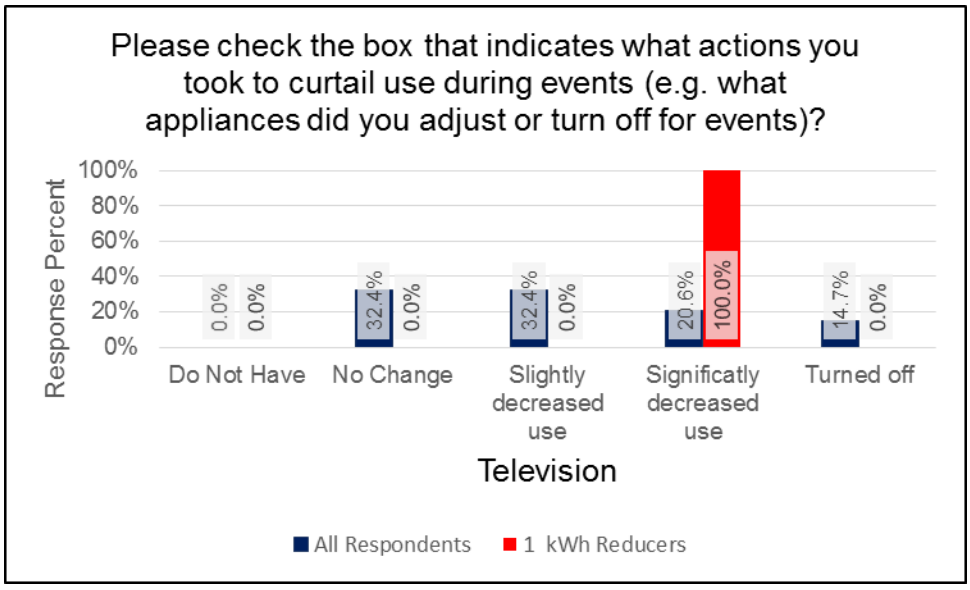
Lighting

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	0	0.0%	0	0.0%
No Change	8	11.9%	0	0.0%
Slightly decreased use	20	29.9%	0	0.0%
Significatly decreased use	31	46.3%	3	100.0%
Turned off	8	11.9%	0	0.0%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



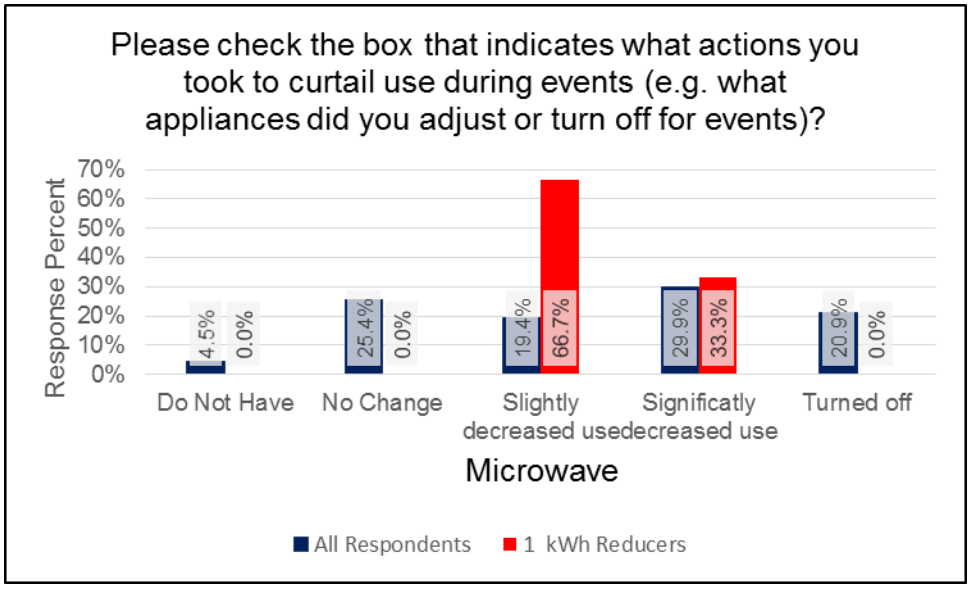
Television

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do Not Have	0	0.0%	0	0.0%
No Change	22	32.4%	0	0.0%
Slightly decreased use	22	32.4%	0	0.0%
Significatly decreased use	14	20.6%	3	100.0%
Turned off	10	14.7%	0	0.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	



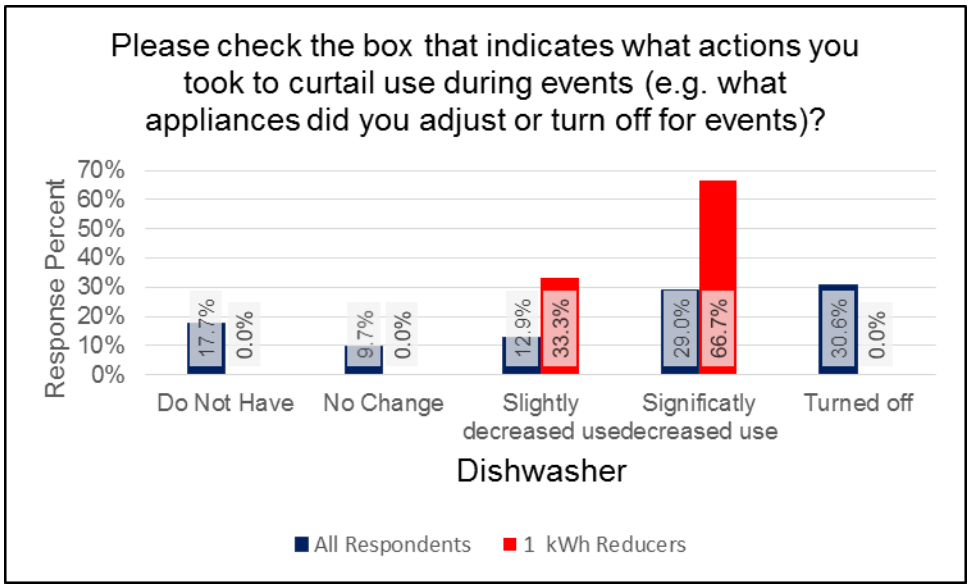
Microwave

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Do Not Have	3	4.5%	0	0.0%
No Change	17	25.4%	0	0.0%
Slightly decreased use	13	19.4%	2	66.7%
Significatly decreased use	20	29.9%	1	33.3%
Turned off	14	20.9%	0	0.0%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



Dishwasher

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Do Not Have	11	17.7%	0	0.0%
No Change	6	9.7%	0	0.0%
Slightly decreased use	8	12.9%	1	33.3%
Significatly decreased use	18	29.0%	2	66.7%
Turned off	19	30.6%	0	0.0%
Total Responses	62	100.0%	3	100.0%
Missing Responses	7		0	
Percent Missing	10.1%		0.0%	

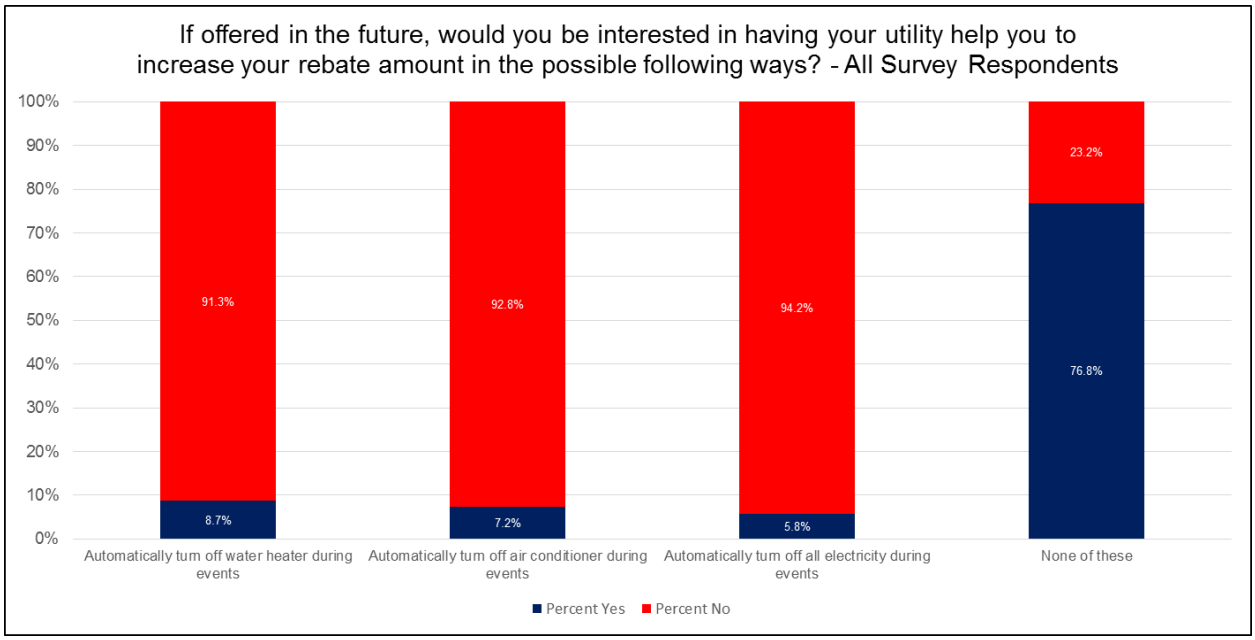

Please check the box that indicates what actions you took to curtail use during events (e.g. what appliances did you adjust or turn off for events)?
Response Percent
70%
60%
50%
40%
30%
20%
10%
0%
17.7%
0.0%
9.7%
0.0%
12.9%
33.3%
29.0%
66.7%
30.6%
0.0%
Do Not Have
No Change
Slightly decreased use
Significatly decreased use
Turned off
Dishwasher
All Respondents
1 kWh Reducers

Question 10

If offered in the future, would you be interested in having your utility help you to increase your rebate amount in the possible following ways?

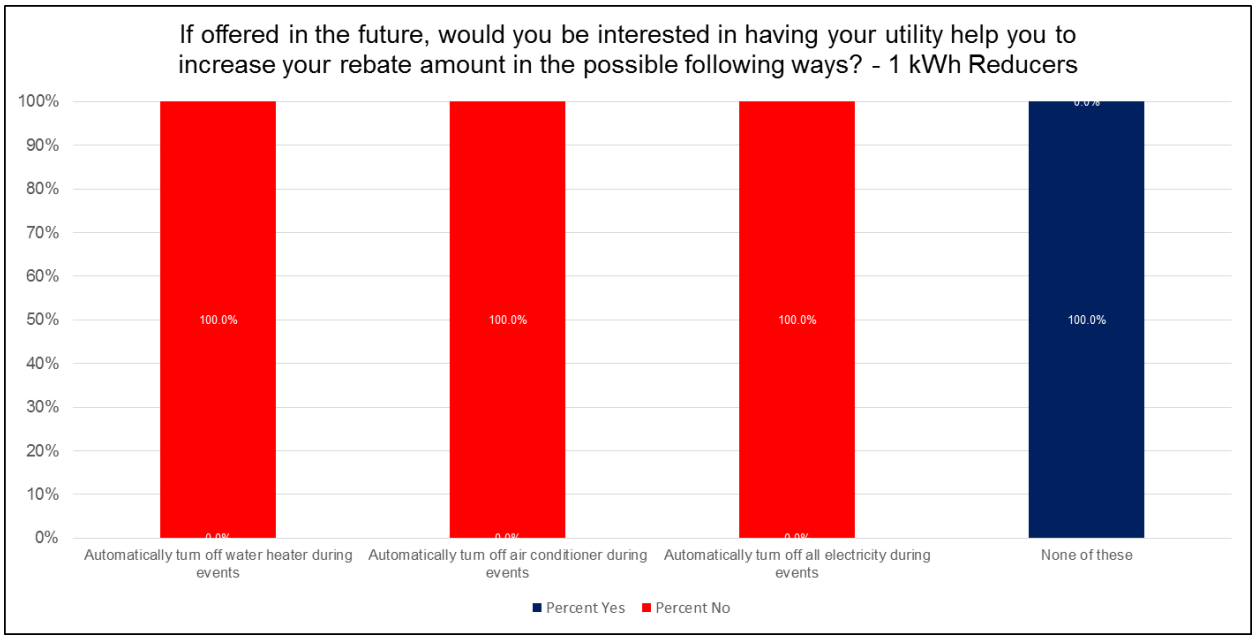
All Survey Respondents

All Survey Respondents	Frequency Yes	Frequency No	Percent Yes	Percent No
Automatically turn off water heater during events	6	63	8.7%	91.3%
Automatically turn off air conditioner during events	5	64	7.2%	92.8%
Automatically turn off all electricity during events	4	65	5.8%	94.2%
None of these	53	16	76.8%	23.2%



1 kWh Reducers

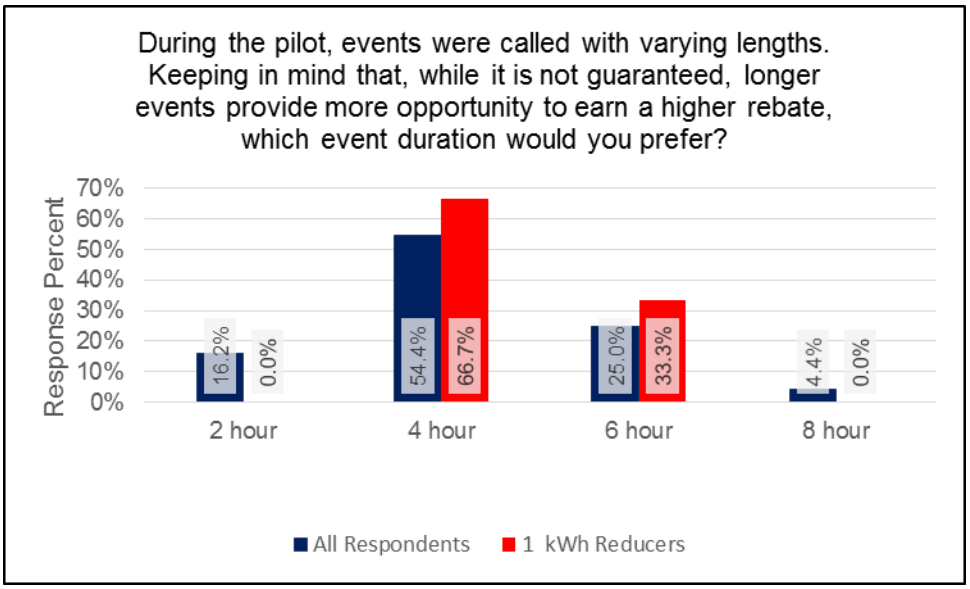
1 kWh Reducers	Frequency Yes	Frequency No	Percent Yes	Percent No
Automatically turn off water heater during events	0	3	0.0%	100.0%
Automatically turn off air conditioner during events	0	3	0.0%	100.0%
Automatically turn off all electricity during events	0	3	0.0%	100.0%
None of these	3	0	100.0%	0.0%


If offered in the future, would you be interested in having your utility help you to increase your rebate amount in the possible following ways? - 1 kWh Reducers
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
100.0%
100.0%
100.0%
100.0%
0.0%
0.0%
0.0%
0.0%
Automatically turn off water heater during events
Automatically turn off air conditioner during events
Automatically turn off all electricity during events
None of these
Percent Yes
Percent No

Question 11

During the pilot, events were called with varying lengths. Keeping in mind that, while it is not guaranteed, longer events provide more opportunity to earn a higher rebate, which event duration would you prefer?

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
2 hour	11	16.2%	0	0.0%
4 hour	37	54.4%	2	66.7%
6 hour	17	25.0%	1	33.3%
8 hour	3	4.4%	0	0.0%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	

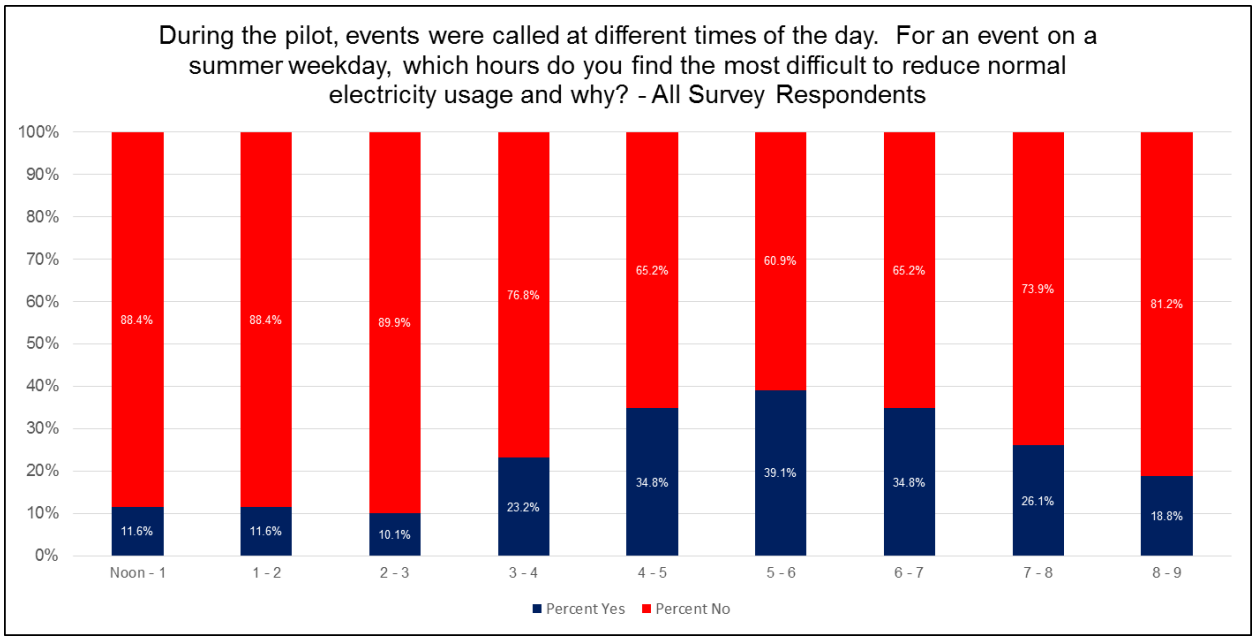


Question 12

During the pilot, events were called at different times of the day. For an event on a summer weekday, which hours do you find the most difficult to reduce normal electricity usage and why?

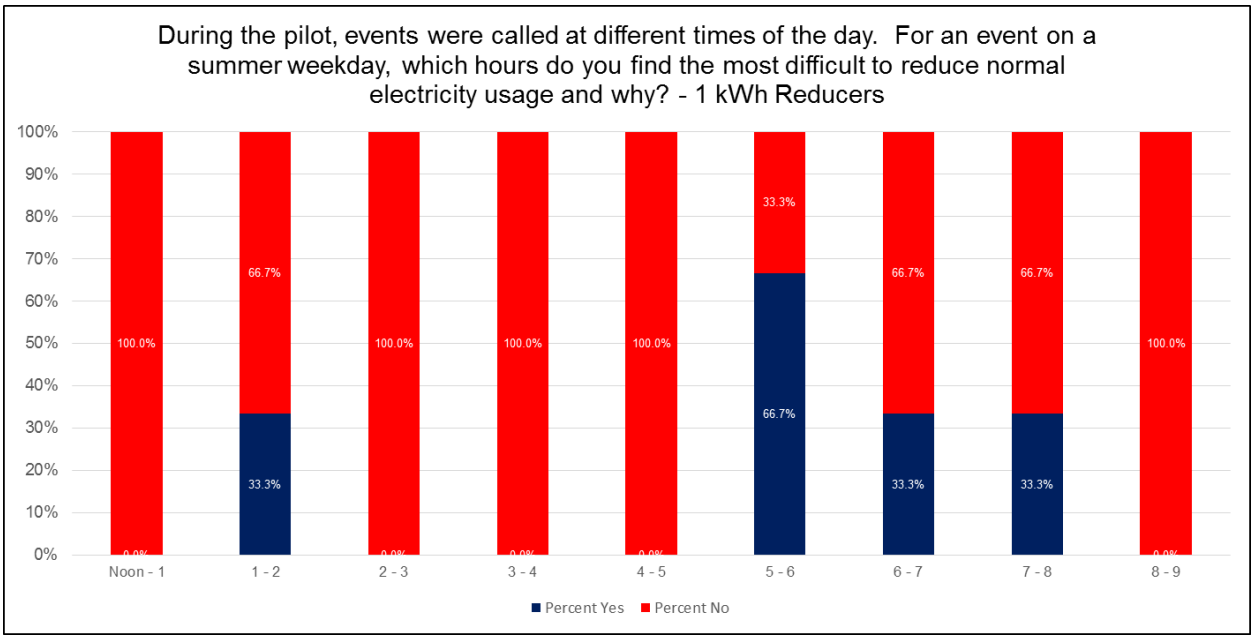
All Survey Respondents

All Survey Respondents	Frequency Yes	Frequency No	Percent Yes	Percent No
Noon - 1	8	61	11.6%	88.4%
1 - 2	8	61	11.6%	88.4%
2 - 3	7	62	10.1%	89.9%
3 - 4	16	53	23.2%	76.8%
4 - 5	24	45	34.8%	65.2%
5 - 6	27	42	39.1%	60.9%
6 - 7	24	45	34.8%	65.2%
7 - 8	18	51	26.1%	73.9%
8 - 9	13	56	18.8%	81.2%



1 kWh Reducers

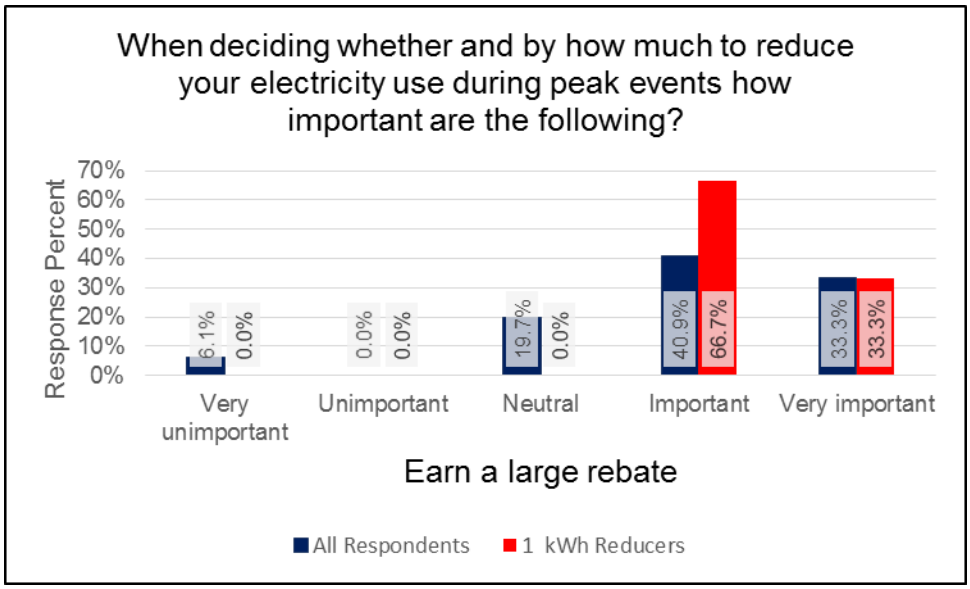
1 kWh Reducers	Frequency Yes	Frequency No	Percent Yes	Percent No
Noon - 1	0	3	0.0%	100.0%
1 - 2	1	2	33.3%	66.7%
2 - 3	0	3	0.0%	100.0%
3 - 4	0	3	0.0%	100.0%
4 - 5	0	3	0.0%	100.0%
5 - 6	2	1	66.7%	33.3%
6 - 7	1	2	33.3%	66.7%
7 - 8	1	2	33.3%	66.7%
8 - 9	0	3	0.0%	100.0%


During the pilot, events were called at different times of the day. For an event on a summer weekday, which hours do you find the most difficult to reduce normal electricity usage and why? - 1 kWh Reducers
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
100.0%
66.7%
33.3%
100.0%
100.0%
100.0%
33.3%
66.7%
66.7%
66.7%
33.3%
33.3%
33.3%
66.7%
33.3%
33.3%
100.0%
Noon - 1
1 - 2
2 - 3
3 - 4
4 - 5
5 - 6
6 - 7
7 - 8
8 - 9
Percent Yes
Percent No

Question 13
When deciding whether and by how much to reduce your electricity use during peak events how important are the following?

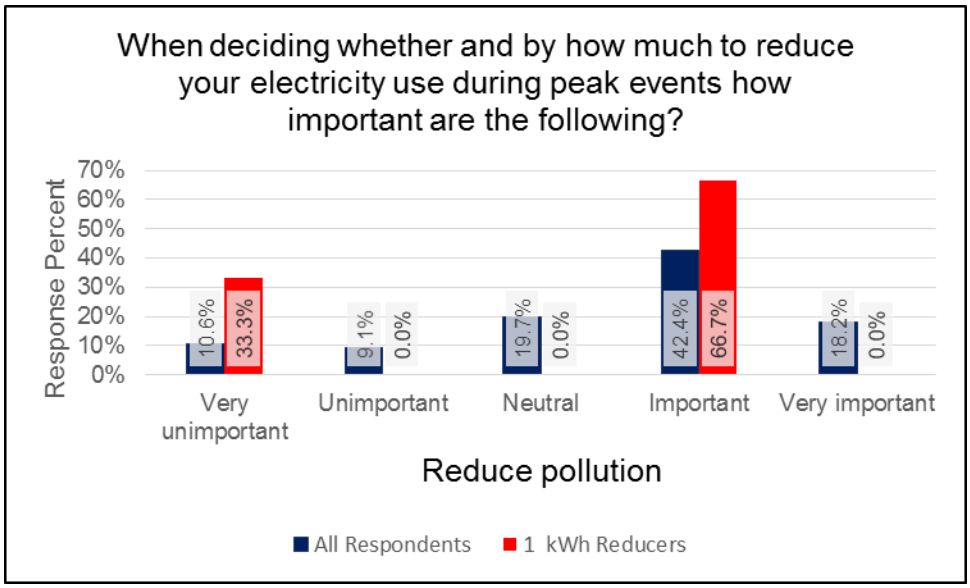
Earn a large rebate

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Very unimportant	4	6.1%	0	0.0%
Unimportant	0	0.0%	0	0.0%
Neutral	13	19.7%	0	0.0%
Important	27	40.9%	2	66.7%
Very important	22	33.3%	1	33.3%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



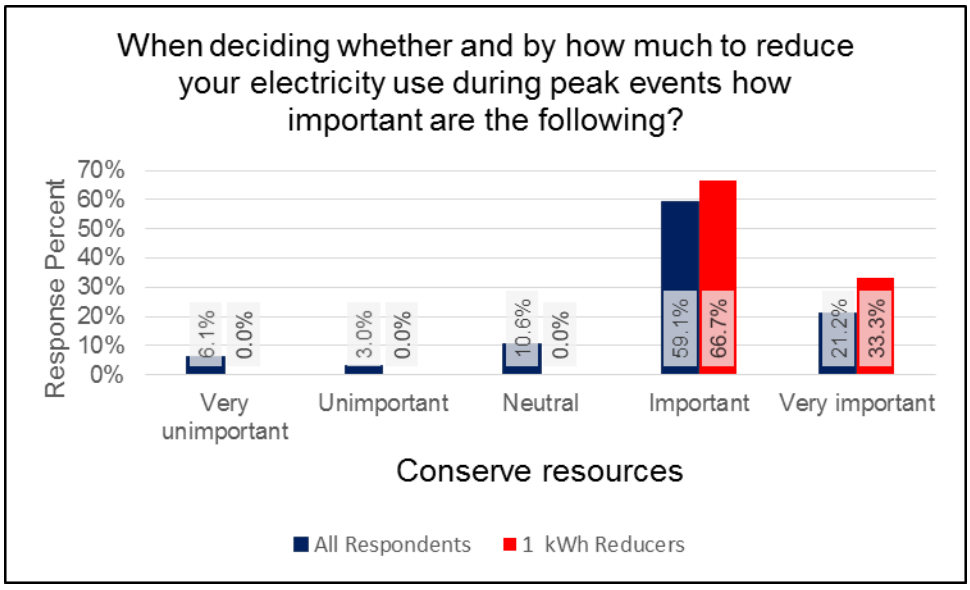
Reduce pollution

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Very unimportant	7	10.6%	1	33.3%
Unimportant	6	9.1%	0	0.0%
Neutral	13	19.7%	0	0.0%
Important	28	42.4%	2	66.7%
Very important	12	18.2%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



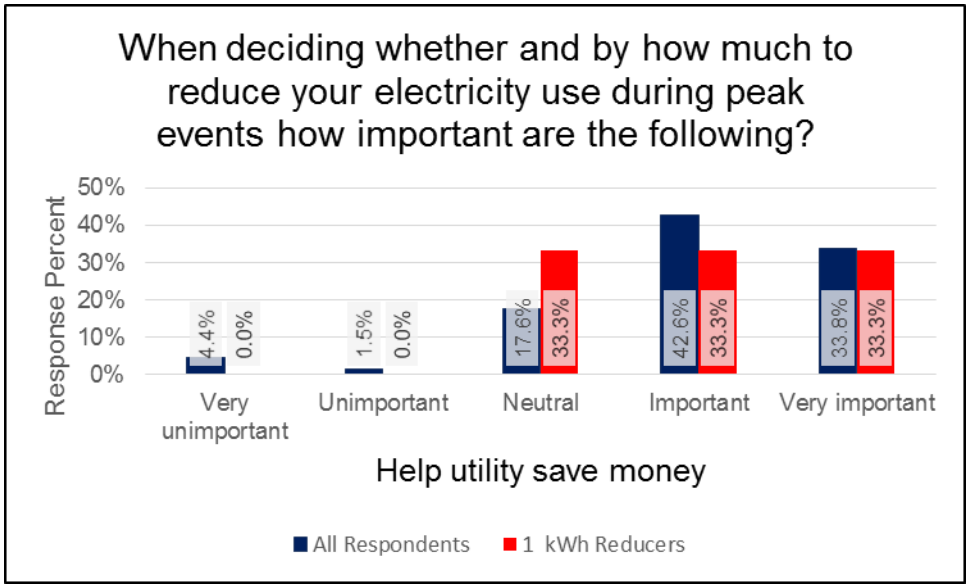
Conserve resources

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Very unimportant	4	6.1%	0	0.0%
Unimportant	2	3.0%	0	0.0%
Neutral	7	10.6%	0	0.0%
Important	39	59.1%	2	66.7%
Very important	14	21.2%	1	33.3%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



Help utility save money

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Very unimportant	3	4.4%	0	0.0%
Unimportant	1	1.5%	0	0.0%
Neutral	12	17.6%	1	33.3%
Important	29	42.6%	1	33.3%
Very important	23	33.8%	1	33.3%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	

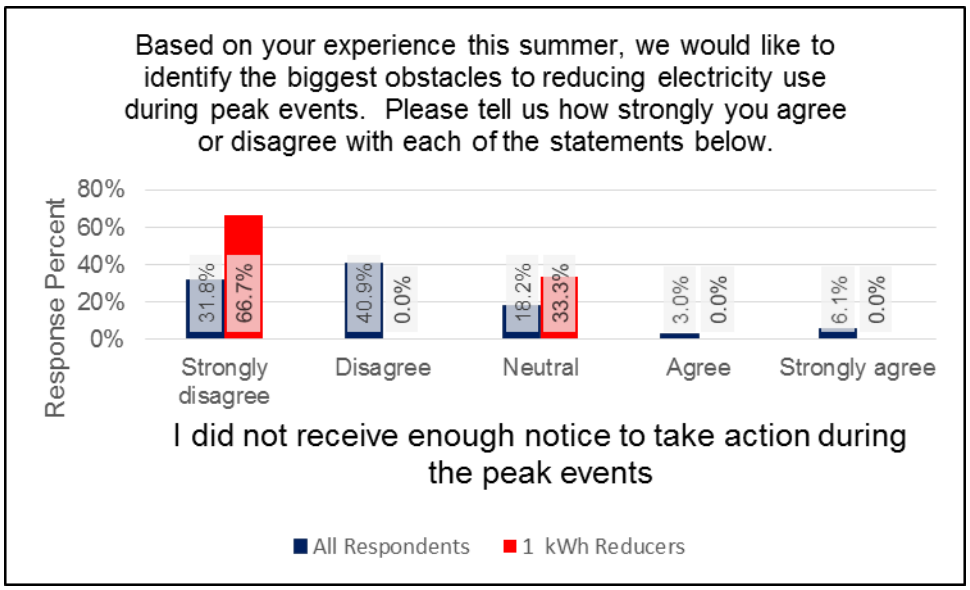


Question 14

Based on your experience this summer, we would like to identify the biggest obstacles to reducing electricity use during peak events. Please tell us how strongly you agree or disagree with each of the statements below.

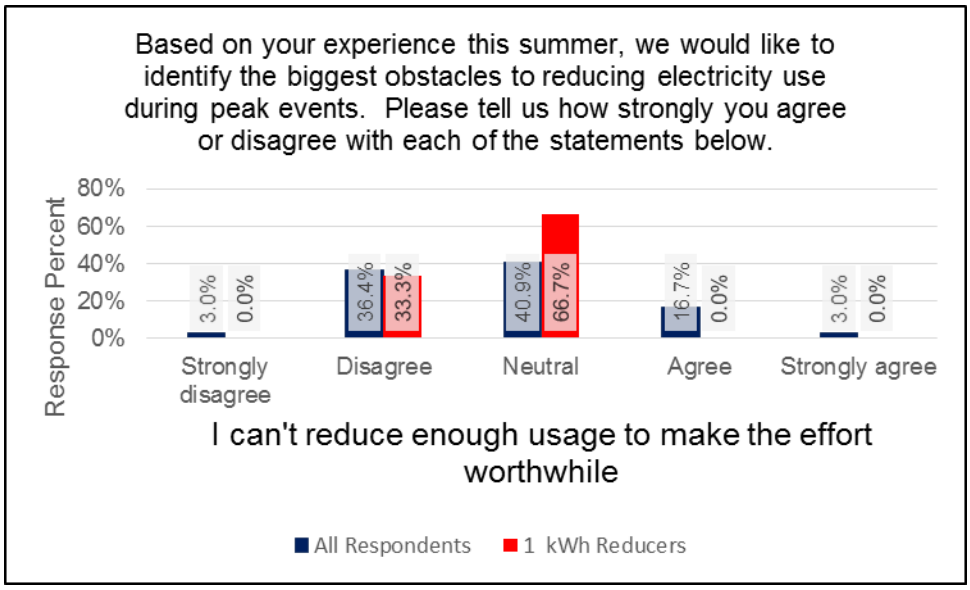
I did not receive enough notice to take action during the peak events

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Strongly disagree	21	31.8%	2	66.7%
Disagree	27	40.9%	0	0.0%
Neutral	12	18.2%	1	33.3%
Agree	2	3.0%	0	0.0%
Strongly agree	4	6.1%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



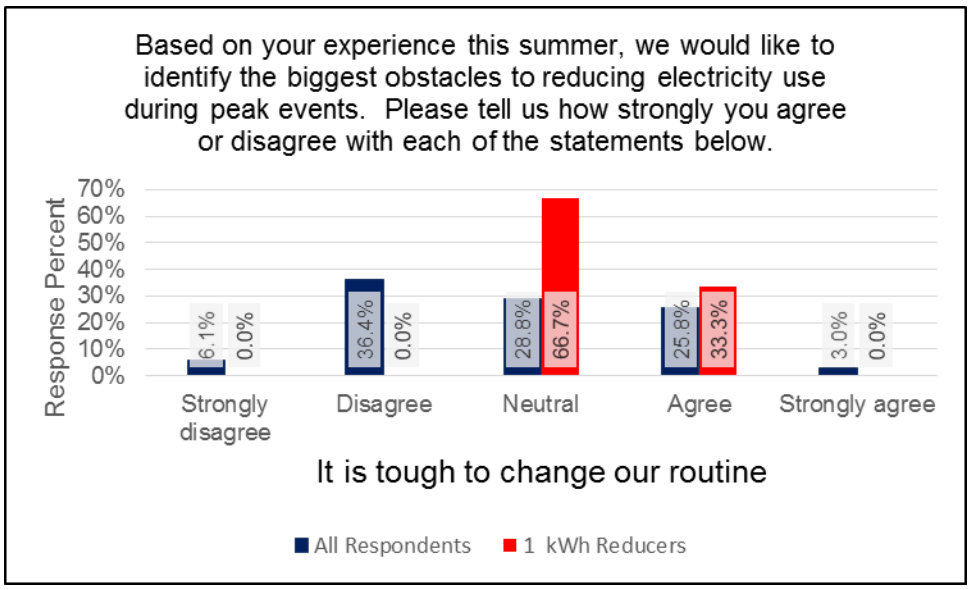
I can't reduce enough usage to make the effort worthwhile

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Strongly disagree	2	3.0%	0	0.0%
Disagree	24	36.4%	1	33.3%
Neutral	27	40.9%	2	66.7%
Agree	11	16.7%	0	0.0%
Strongly agree	2	3.0%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



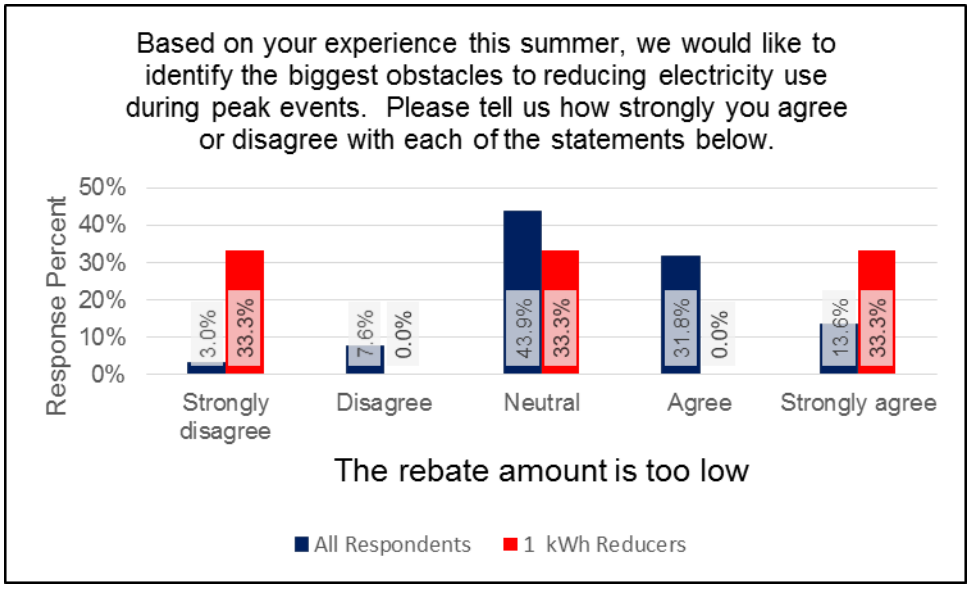
It is tough to change our routine

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Strongly disagree	4	6.1%	0	0.0%
Disagree	24	36.4%	0	0.0%
Neutral	19	28.8%	2	66.7%
Agree	17	25.8%	1	33.3%
Strongly agree	2	3.0%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



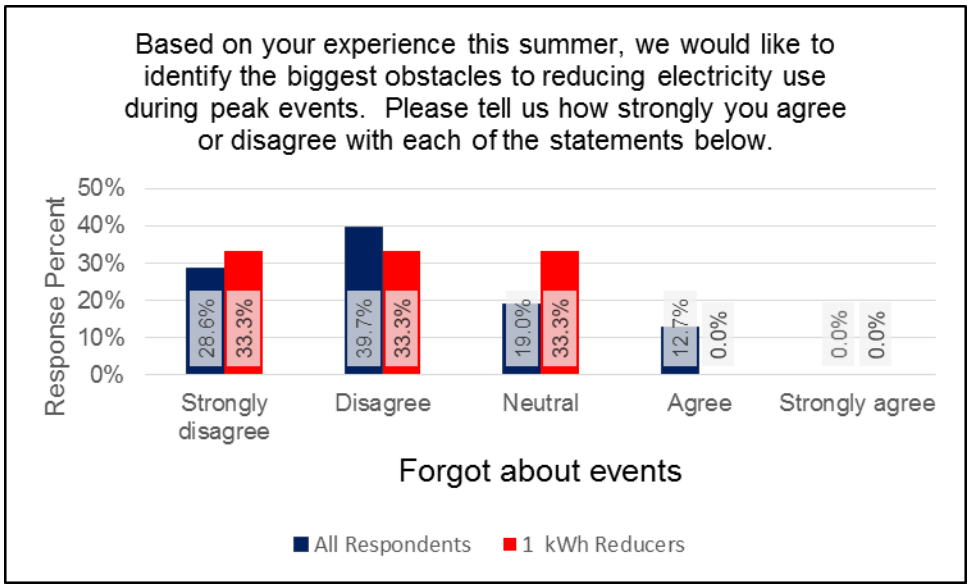
The rebate amount is too low

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Strongly disagree	2	3.0%	1	33.3%
Disagree	5	7.6%	0	0.0%
Neutral	29	43.9%	1	33.3%
Agree	21	31.8%	0	0.0%
Strongly agree	9	13.6%	1	33.3%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



Forgot about events

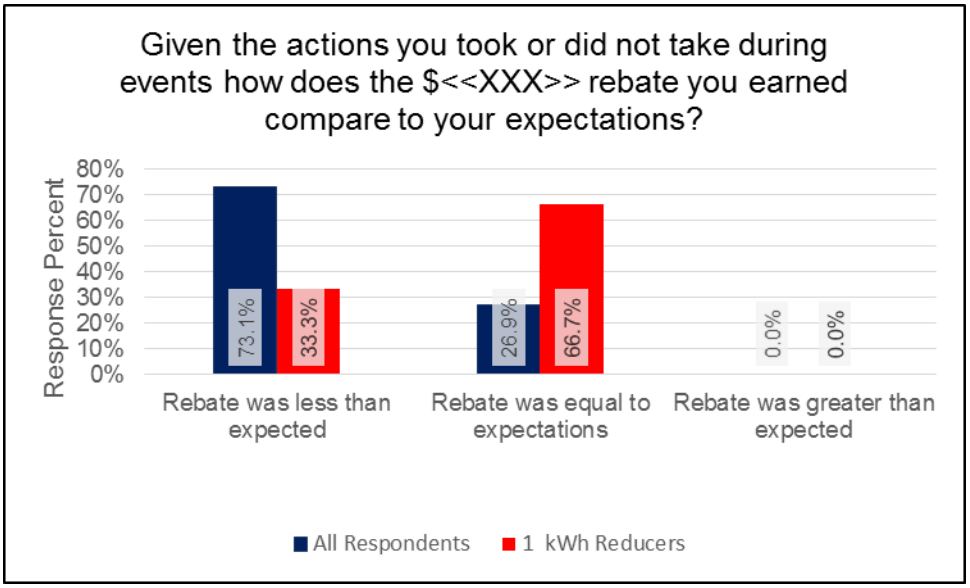
	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Strongly disagree	18	28.6%	1	33.3%
Disagree	25	39.7%	1	33.3%
Neutral	12	19.0%	1	33.3%
Agree	8	12.7%	0	0.0%
Strongly agree	0	0.0%	0	0.0%
Total Responses	63	100.0%	3	100.0%
Missing Responses	6		0	
Percent Missing	8.7%		0.0%	


Based on your experience this summer, we would like to identify the biggest obstacles to reducing electricity use during peak events. Please tell us how strongly you agree or disagree with each of the statements below.
Response Percent
50%
40%
30%
20%
10%
0%
28.6%
33.3%
39.7%
33.3%
19.0%
33.3%
12.7%
0.0%
0.0%
0.0%
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Forgot about events
All Respondents
1 kWh Reducers

Question 15

Given the actions you took or did not take during events how does the $<<XXX>> rebate you earned compare to your expectations?

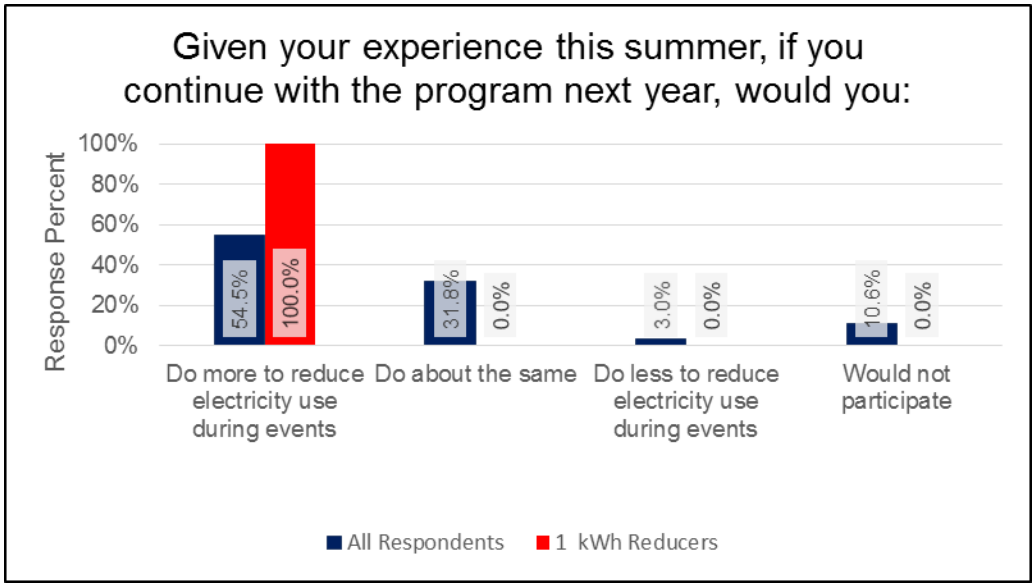
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Rebate was less than expected	49	73.1%	1	33.3%
Rebate was equal to expectations	18	26.9%	2	66.7%
Rebate was greater than expected	0	0.0%	0	0.0%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



Question 16

Given your experience this summer, if you continue with the program next year, would you:

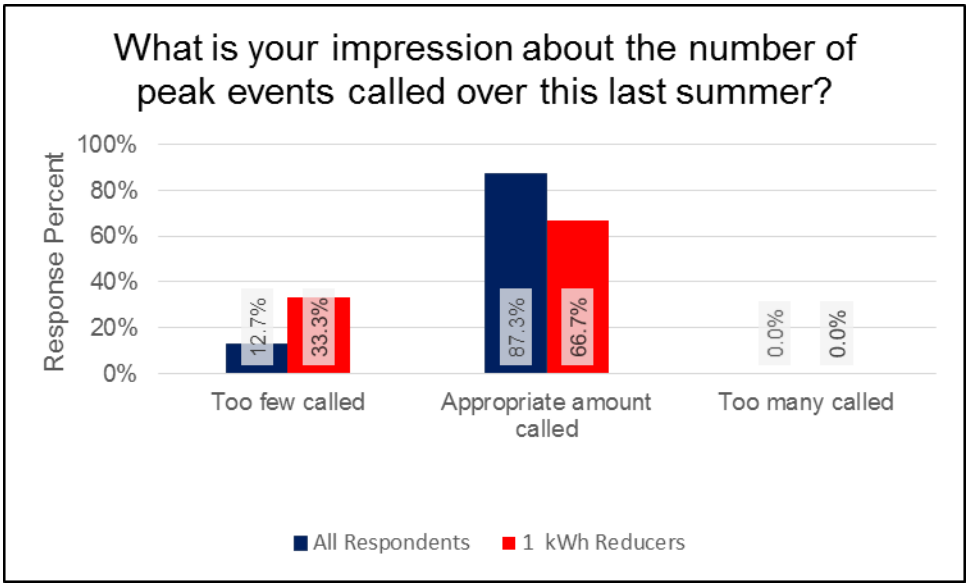
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Do more to reduce electricity use during events	36	54.5%	3	100.0%
Do about the same	21	31.8%	0	0.0%
Do less to reduce electricity use during events	2	3.0%	0	0.0%
Would not participate	7	10.6%	0	0.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



Question 17

What is your impression about the number of peak events called over this last summer?

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Too few called	8	12.7%	1	33.3%
Appropriate amount called	55	87.3%	2	66.7%
Too many called	0	0.0%	0	0.0%
Total Responses	63	100.0%	3	100.0%
Missing Responses	6		0	
Percent Missing	8.7%		0.0%	

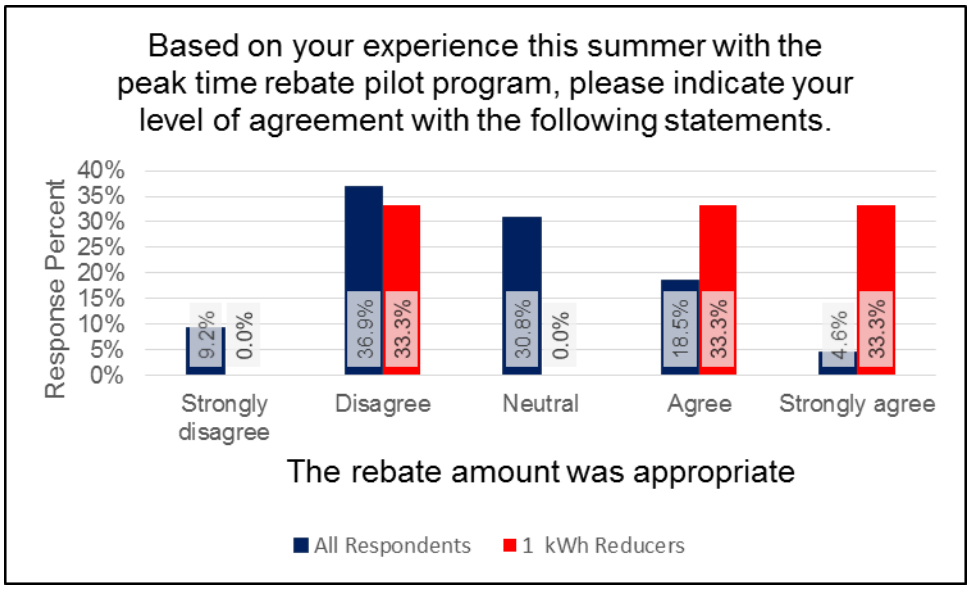


Question 18

Based on your experience this summer with the peak time rebate pilot program, please indicate your level of agreement with the following statements.

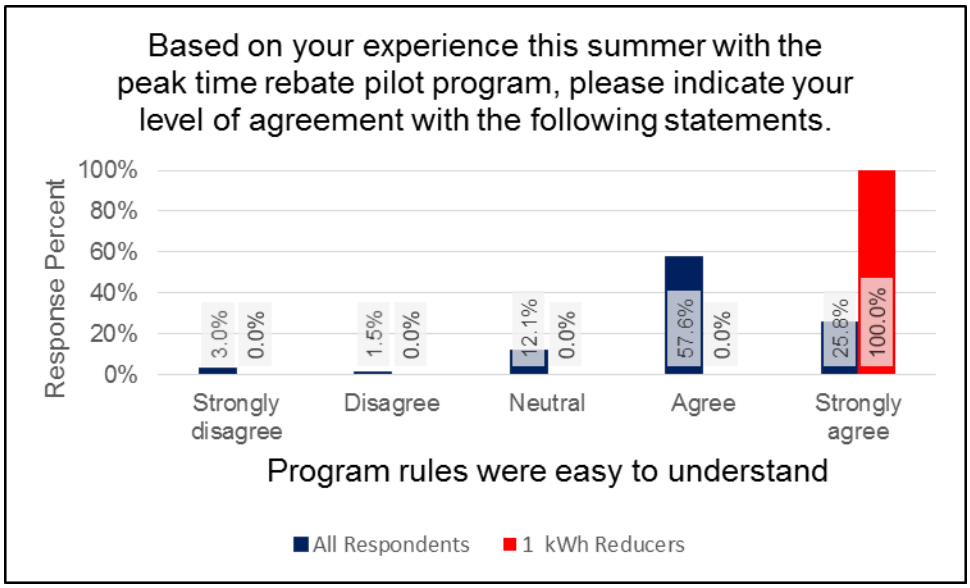
The rebate amount was appropriate

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Strongly disagree	6	9.2%	0	0.0%
Disagree	24	36.9%	1	33.3%
Neutral	20	30.8%	0	0.0%
Agree	12	18.5%	1	33.3%
Strongly agree	3	4.6%	1	33.3%
Total Responses	65	100.0%	3	100.0%
Missing Responses	4		0	
Percent Missing	5.8%		0.0%	



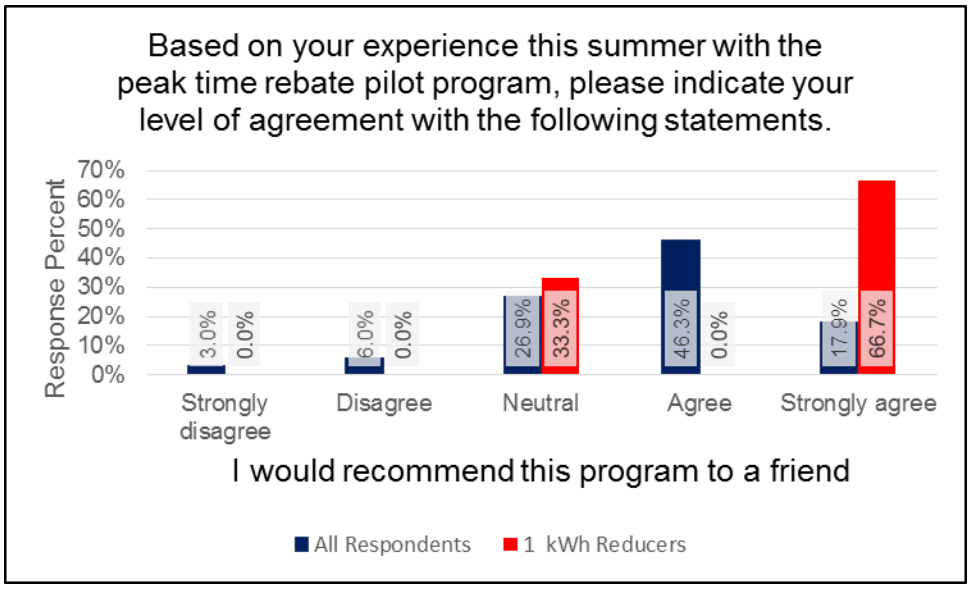
Program rules were easy to understand

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Strongly disagree	2	3.0%	0	0.0%
Disagree	1	1.5%	0	0.0%
Neutral	8	12.1%	0	0.0%
Agree	38	57.6%	0	0.0%
Strongly agree	17	25.8%	3	100.0%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	



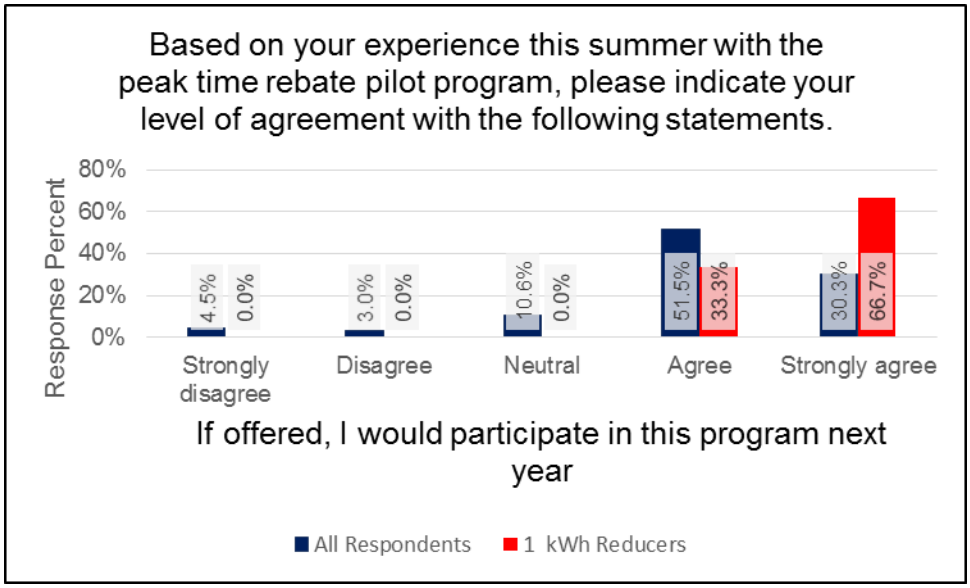
I would recommend this program to a friend

	Frequency	Percent	1 kWh Reducers Frequency	1 kWh Reducers Percent
Strongly disagree	2	3.0%	0	0.0%
Disagree	4	6.0%	0	0.0%
Neutral	18	26.9%	1	33.3%
Agree	31	46.3%	0	0.0%
Strongly agree	12	17.9%	2	66.7%
Total Responses	67	100.0%	3	100.0%
Missing Responses	2		0	
Percent Missing	2.9%		0.0%	



If offered, I would participate in this program next year

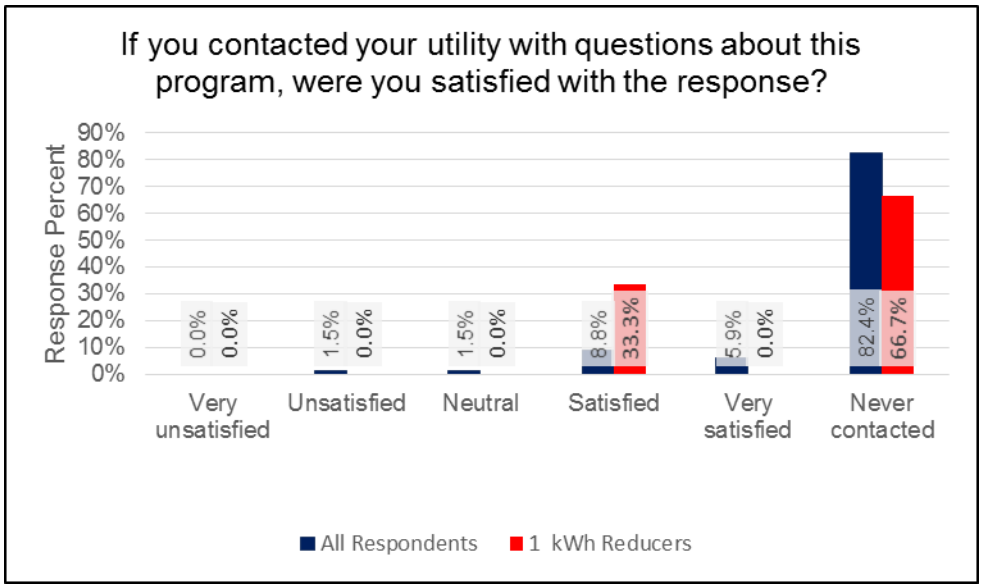
			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Strongly disagree	3	4.5%	0	0.0%
Disagree	2	3.0%	0	0.0%
Neutral	7	10.6%	0	0.0%
Agree	34	51.5%	1	33.3%
Strongly agree	20	30.3%	2	66.7%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%	

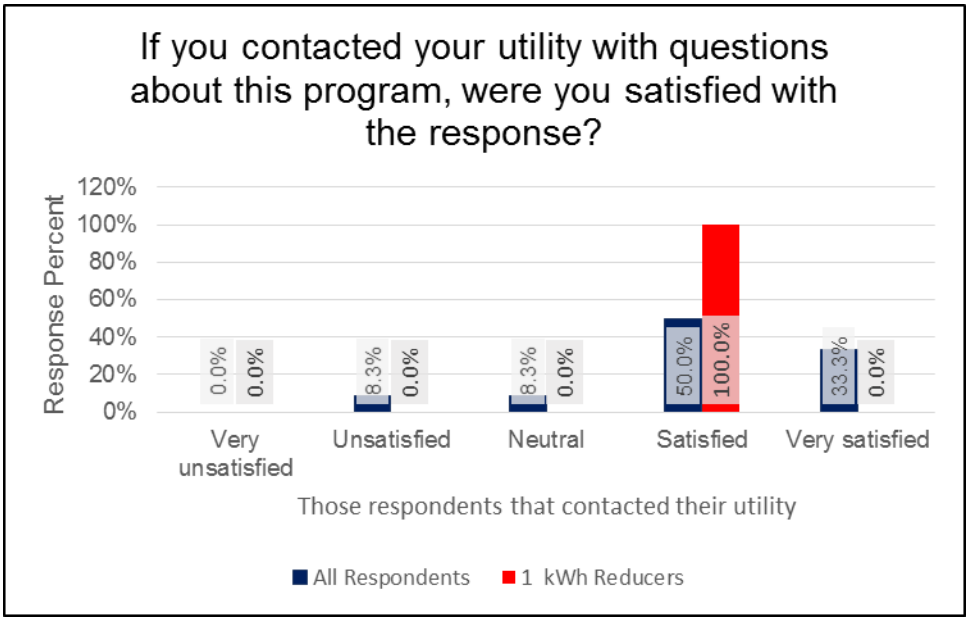


Question 19

If you contacted your utility with questions about this program, were you satisfied with the response?

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Very unsatisfied	0	0.0%	0	0.0%
Unsatisfied	1	1.5%	0	0.0%
Neutral	1	1.5%	0	0.0%
Satisfied	6	8.8%	1	33.3%
Very satisfied	4	5.9%	0	0.0%
Never contacted	56	82.4%	2	66.7%
Total Responses	68	100.0%	3	100.0%
Missing Responses	1		0	
Percent Missing	1.4%		0.0%	




If you contacted your utility with questions about this program, were you satisfied with the response?
Response Percent
120%
100%
80%
60%
40%
20%
0%
0.0%
0.0%
8.3%
0.0%
8.3%
0.0%
50.0%
100.0%
33.3%
0.0%
Very unsatisfied
Unsatisfied
Neutral
Satisfied
Very satisfied
Those respondents that contacted their utility
All Respondents
1 kWh Reducers

Question 20

Considering the number of events, notifications, your lifestyle changes during events, the rebate earned, and everything else involved, how satisfied are you with this peak time rebate pilot program?

			1 kWh Reducers	
	Frequency	Percent	Frequency	Percent
Very unsatisfied	4	6.1%	0	0.0%
Unsatisfied	5	7.6%	0	0.0%
Neutral	28	42.4%	1	33.3%
Satisfied	24	36.4%	1	33.3%
Very satisfied	5	7.6%	1	33.3%
Total Responses	66	100.0%	3	100.0%
Missing Responses	3		0	
Percent Missing	4.3%		0.0%