MEMORANDUM

To: Brenda Gettig, SDG&E Evaluation Manager

From: Dulane Moran

Date: November 26, 2012

Re: PTR 9/15 Post-Event Survey Results

SUMMARY

This memo describes the results from the third 2012 post-event survey, launched in late September 2012 following a September 15 Reduce Your Use (RYU) event.

Residential

- We found differences in response pattern by survey delivery mode. Those who took the survey by email reported significantly greater awareness of RYU days than those who took the survey by phone. SDG&E sent event notifications to everyone with MyAccount emails, so this likely affected who responded to the survey and created response bias among email responders. Because of this, we assume that the phone results are likely to more accurately represent the awareness level of the general San Diego population.
- Demographic characteristics of each of the five groups differ. The Summer Saver and Opt-in Alert groups have higher concentration of homeowners and higher household income, education, and are more likely to be Caucasian.
- While general awareness of RYU days is relatively high, event specific awareness remains below 50% overall. Awareness levels among the No MyAccount group are significantly lower than the rest of the groups.
- More than half of the non-opt-in groups did not know about the availability of RYU notification options.

- Email message was the most common source of the September 15 event information for all the groups except the No MyAccount group. TV advertisements most commonly reached the No MyAccount group.
- Two-thirds of those aware of the September 15 event reported attempting to use less electricity during the event. This was consistent across all the groups.
- The importance of bill credits as a reason to respond to the event is significantly higher among the alert groups, in particular the Opt-in Alert group, than non-opt-in groups. Opting-in to notification may be influenced by a desire to earn bill credits.
- Two-thirds of the respondents reported they are likely to respond to future RYU events. This likelihood is particularly high among the Opt-in Alert group (92%).
- The most common comments provided relating to program improvement suggestions were: a desire to receive higher bill credit; a need to improve the "use less than …" calculation; inability to take more actions to lower their energy use; and preferred modes of event communication.

Small Commercial

- A majority of the respondent firms reported general awareness of RYU days; however, event specific awareness is considerably lower.
- Verbatim feedback indicates many small commercial customers encounter different challenges to respond to RYU events than residential customers.

METHODOLOGY

Following a Reduce Your Use day called on Saturday, September 15, we implemented post-event surveys by phone and web for both residential and small commercial customers of SDG&E. Phone calls occurred between September 20 and October 2. The addition of a web survey option represented a change from the prior two post-event surveys. This option was added to cost-effectively increase the number of survey respondents and to give the research team a chance to test the validity of this survey mode for future surveys. CIC Research completed 430 phone surveys. Over 2,500 respondents completed the web survey (Table 1).

Table 1: Final Sample

	Web	Phone	Total
	Residential		
Completed	2,515	369	2,884
Response Rate	14%	15%	-

Small Commercial			
Completed	172	61	233
Response Rate	5%	10%	-

The survey asked respondents about: understanding and awareness of event days; means of notification; possible actions to reduce electricity use; their intent to participate in the future; and general suggestions for program improvement.

Sample Development and Weighting

To understand the differing awareness of those who signed up for event day alerts through email or text message, those who signed up for the San Diego Energy Challenge (SDEC), participants of the Summer Savers program, and those who received email alerts because of their use of MyAccount, we stratified both the residential and commercial samples. Table 2 describes each stratum for both residential and commercial samples. The first three residential groups (Summer Savers, SDEC, and Alert opt-in) are classified as "opt-in" groups throughout the report, because they each opted into a demand-response related program or notification.

Table 2: Strata Definitions

Sample	Definition
	Residential
Summer Savers	Opted in to the Summer Savers program. Although Summer Savers participants were invited to sign up for event day alerts, this sample did not opt in for optional PTR alerts. Received augmented PTR credit of $1.25/kWh.
SDEC	Opted in to the San Diego Energy Challenge (SDEC) program. Received event alerts by text or email, with SDEC branding.
Alert Opt-in	Not part of the above two groups, but opted in to receive text or email alerts for event days.
MyAccount	Not in any of the above three groups, but has MyAccount. Email alerts were sent to MyAccount-registered email address.
No MyAccount	Not in any of the top three groups, and does not have MyAccount.
	Commercial
MyAccount	Has MyAccount. Email alert sent to MyAccount-registered email address.
No MyAccount	Does not have MyAccount.

Table 3 and Table 4 show the population size, the number of surveys completed, and weight values of each stratum. Because of the varied response rates within each stratum, the resulting sample distribution was disproportionate to the population. In order to develop more accurate overall estimates we used proportional weights to correct for this deviance, according to the following formula:

$$Stratum\ weight = \frac{\%\ of\ stratum\ in\ population}{\%\ of\ stratum\ in\ sample}$$

Table 3: Residential Population, Sample, and Weights

Sample Group	Population	Sample Size	Weight
Summer Savers	23,481	634	0.09
San Diego Energy Challenge	4,379	627	0.02
Alert Opt-in	41,340	600	0.16
Yes MyAccount	530,562	787	1.89
No MyAccount	639,528	236	5.23
Total	**1,239,290**	**2,884**	**-**

Table 4: Small Commercial Population, Sample, and Weights

Sample Group	Population	Sample Size	Weight
Yes MyAccount	80,989	85	1.90
No MyAccount	36,130	148	0.49
Total	**117,119**	**233**	**-**

Notes to Readers

Results within strata are unweighted. We applied weights only to the total estimates signified by the column header "Wt. Total."

Significant tests were conducted using the weighted data. To understand whether responses differed significantly across groups, we used Chi-Square tests. The results of Chi-Square analyses are presented in the last column of the tables below. Significant results are reported at $p<.05$, unless otherwise specified. A "significant" Chi-Square finding for any given row in a table means that the observed differences between the groups are not due to chance. A significant Chi-Square test does *not* allow us to conclude that any two specific groups are significantly different, or that one group is different from the average, but just that the distribution of responses across groups is very likely not due to chance.

Finally, we use phone and web combined data in all of the tables below. It is important to note that we have found systematic differences between phone and web respondents. Web respondents are overall more likely to be aware of and engaged with RYU notifications and PTR messages compared with phone respondents. Considering that SDG&E's main mode of communication with their customers for this program is through web and email, this finding was somewhat anticipated. Even though the phone and web data are combined and weighted, the presence of the high proportion of web respondents means that results are likely overestimating

the level of awareness among San Diego households and small businesses. To demonstrate this, we included phone-only numbers in some figures below. Readers should assume the presence of web respondent data in all tables not otherwise labeled. Mode difference analysis is presented in the Appendix A.

FINDINGS – RESIDENTIAL

Demographics

Table 5 summarizes the demographic characteristics across all response groups. We found significant differences in most of these traits; however, these significant findings are mainly due to the distinct characteristics of Summer Saver and SDEC participants as described below.

The Summer Saver group contains a greater proportion of higher-income homeowners with higher levels of education attainment. Almost all of their homes have a central air conditioner, as the program requires. Summer Savers also have the highest percentage of homes with a pool. The SDEC group, on the other hand, has a high proportion of lower income households, and their homes are the least likely to have a central air conditioner or a pool. Opt-in Alerts and MyAccount groups' home characteristics are similar, but Opt-in Alerts group contacts are more likely to be a homeowner and have slightly higher household incomes than MyAccount group. The No MyAccount group has, among all of the five groups, the lowest household income and education, and it has the highest concentration of minority households.

Table 5: Summary of Demographic Characteristics by Group

		Summer Saver N=611	Energy Challenge N=604	Opt-in Alerts N=582	My Acct. N=747	No My Acct. N=224	Wt. Total	Sig.
Central air conditioner	Yes	99%	36%	56%	52%	52%	**53%**	<.001
Have a pool	Yes	22%	7%	12%	14%	8%	**11%**	<.001
Presence of senior (70 yr or above)	Yes	30%	9%	18%	16%	17%	**17%**	ns
Someone regularly home all day	Yes	69%	55%	67%	58%	59%	**59%**	ns
Homeowner	Yes	94%	53%	76%	62%	62%	**63%**	<.001
HH Income	Under $50K	21%	40%	28%	34%	46%	**38%**	<.001
	$50 to less than $100K	39%	35%	39%	36%	25%	**32%**	
	$100K or more	40%	25%	33%	30%	29%	**30%**	
Education	HS or less	7%	7%	9%	10%	14%	**12%**	<.05
	Some college	22%	28%	29%	29%	30%	**29%**	
	Bachelor's or higher	71%	65%	63%	61%	56%	**59%**	
Ethnicity	White	78%	70%	80%	74%	69%	**72%**	<.01
	Asian	12%	11%	9%	10%	7%	**9%**	

Hispanic	4%	8%	5%	10%	12%	**10%**
Black	2%	5%	3%	3%	6%	**4%**
Other	4%	5%	3%	4%	7%	**5%**

Awareness Measures

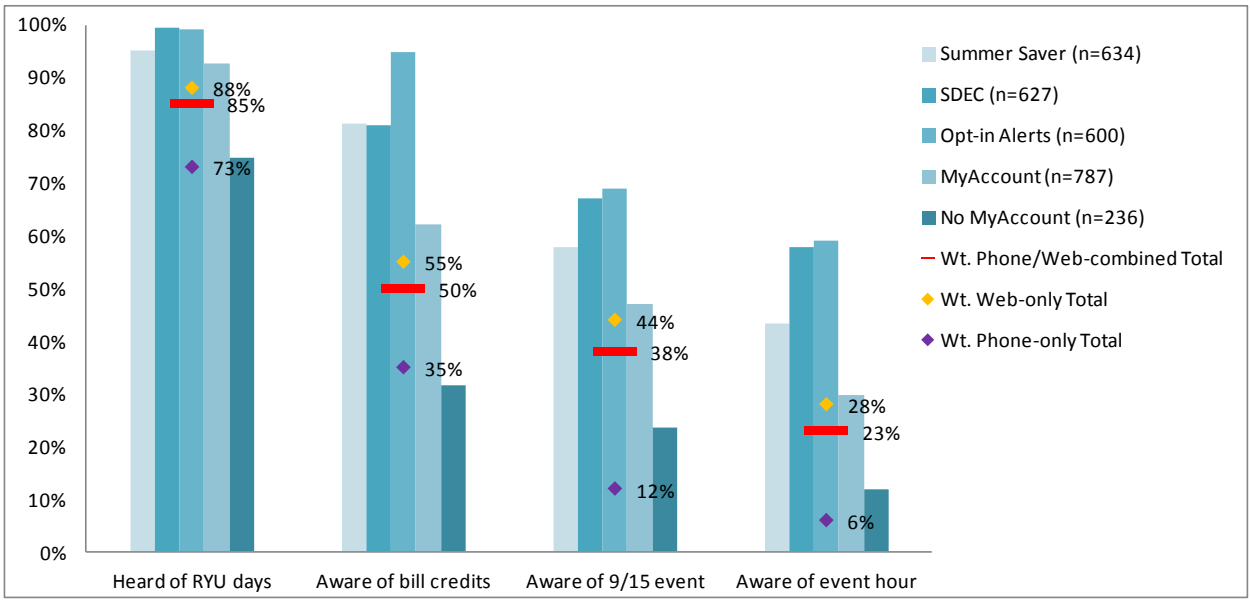
We asked respondents about their awareness of several elements of RYU days – from the broadest indication of general knowledge to familiarity with specific elements of RYU days. Figure 1 illustrates these awareness levels by group (shown as blue bars). It also shows the weighted total of phone and web combined data, as well as web-only and phone-only data to illustrate mode differences (shown as red, yellow, and purple symbols).

A majority of the respondents (85%) reported general awareness of RYU days. These respondents reported that they had seen or heard "Reduce Your Use" requests from SDG&E to reduce energy use during high demand summer days. However, when awareness was defined as those who understood the basic PTR concept – ability to receive bill credit for reducing electricity usage during events – awareness dropped substantially (50%).

When asked about the RYU request on September 15, 38% of contacts were aware of the event. Less than a quarter of the overall respondents were aware of the specific event time frame on the day of the request. Awareness levels measured by these four ways were all significantly different between the groups.

The web-only and phone-only totals show significant mode differences: awareness levels are significantly and systematically higher among web respondents compared with phone respondents; and it is likely that the high proportion of web-respondents is overestimating the awareness of the general household population.

Figure 1: Awareness Measurements by Group



Among those aware of RYU days but in the non-opt-in groups, awareness of the event notification sign-up option was 45% (Table 6). While more than half of those in the MyAccount group (58%) were aware, a significantly lower percent of the No MyAccount group (27%) reported they were aware of this option.

Respondents that were aware of the September 15 event were asked if they had logged on to the SDG&E website to check their electricity usage before and/or after the event. About a third of overall respondents who were aware of the event (32%) reported using the SDG&E website to check their electricity usage before and/or after the RYU event (Table 7). The Opt-in Alert group reported the highest use (59%), and MyAccount group was the lowest in their use of the website (28%). This question was not asked to the No MyAccount group because this group does not have access to this website feature.

Table 6: Awareness of Event Notification Option by Group

	Summer Saver	Energy Challenge	Opt-in Alerts	My Acct. N=657	No My Acct. N=158	Wt. Total	Sig.
Aware of email/text notification option, among non opt-in groups	-	-	-	58%	27%	**45%**	<.001

Table 7: Use of Website by Group

	Summer Saver N=350	Energy Challenge N=401	Opt-in Alerts N=403	My Acct. N=349	No My Acct.	Wt. Total	Sig.
Used SDG&E website to check energy use, among those aware of 9/15 event	40%	49%	59%	28%	-	**32%**	<.001

Sources of Event Information

For all the groups except No MyAccount group, an email message from SDG&E was by far the most common source from which they learned about the September 15 event (80-93%). The No MyAccount group most commonly learned about the event from a TV advertisement or news report (35% and 20% respectively), or on the radio (18%). Interestingly, 27% of the No MyAccount group also reported hearing about the September event via email message (Table).

Table 8: Source of Event Information among Those Aware of 9/15 Event by Group*

	Summer Saver N=361	Energy Challenge N=412	Opt-in Alerts N=406	My Acct. N=362	No My Acct. N=55	Wt. Total	Sig.
Email message	80%	93%	81%	83%	27%	**68%**	<.001
TV advertisement	16%	9%	6%	14%	35%	**19%**	<.001
Radio announcement	13%	7%	9%	12%	18%	**14%**	ns
TV news	10%	3%	8%	9%	20%	**12%**	<.001
Word-of-mouth	2%	6%	4%	4%	13%	**6%**	<.001
Phone text message	13%	8%	25%	3%	0%	**4%**	<.001
Other	2%	2%	2%	1%	4%	**2%**	ns

*Web respondents were presented with pre-coded options to choose from, while phone respondents were asked this question in an open-ended format.

Overall, a majority of those contacts who were aware of the September 15 event (81%) were satisfied with the number of notifications they received (

Table).

Table 9: Perceived Frequency of Number of Notifications by Group

	Summer Saver N=289	Energy Challenge N=368	Opt-in Alerts N=353	My Acct. N=281	No My Acct.	Wt. Total	Sig.
Just enough	88%	85%	89%	80%	-	**81%**	ns
Too many	6%	9%	3%	14%	-	**13%**	
Too few	6%	7%	8%	6%	-	**6%**	
TOTAL	100%	100%	100%	100%	-	**100%**	

Event Day Actions

We investigated actions taken on the event day, any barriers or enablers for taking action, and negative experiences during the event.

Among those who were aware of the event, 67% reported attempting to use less electricity than normal during the event on September 15. There were no significant differences among the groups in the level of effort they reported (Table).

Table 10: Level of Effort Made to Respond to 9/15 Event by Group

	Summer Saver N=353	Energy Challenge N=395	Opt-in Alerts N=399	My Acct. N=341	No My Acct. N=49	Wt. Total	Sig.
A lot more effort than usual	31%	28%	30%	23%	22%	**23%**	ns
Somewhat more effort than usual	45%	47%	49%	44%	43%	**44%**	
No more or less effort than usual	24%	25%	21%	33%	35%	**33%**	
TOTAL	100%	100%	100%	100%	100%	**100%**	

Those who made an effort to reduce their energy use reported taking a variety of actions (Table 7). Among the most common actions, 59% reported turning off lights in unoccupied areas of their home, 56% said they avoided doing laundry during the event time, and 54% turned off or adjusted their air conditioner. Other actions mentioned included avoiding running the dishwasher (38%), unplugging unused electronics (35%), leaving home (32%), and shifting cooking time (24%).

Table 7: Specific Actions Taken on the Event Day by Group*

	Summer Saver N=267	Energy Challenge N=298	Opt-in Alerts N=317	My Acct. N=228	No My Acct. N=32	Wt. Total	Sig.
Turned off lights	56%	69%	64%	55%	69%	**59%**	ns
Not doing laundry	64%	55%	61%	60%	44%	**56%**	<.01
Turned off or adjusted AC	76%	34%	50%	47%	69%	**54%**	<.001
Not running dishwasher	42%	30%	44%	42%	25%	**38%**	<.01
Unplugged electronics	30%	60%	39%	29%	50%	**35%**	<.001
Left home	29%	49%	35%	30%	38%	**32%**	Ns
Shifted cooking time	21%	20%	23%	19%	38%	**24%**	<.001
Pre-cooled the house	15%	7%	11%	13%	9%	**12%**	Ns
Turned off pool pump	12%	5%	9%	6%	9%	**7%**	Ns
Unspecified (just tried to use less)	54%	54%	52%	55%	38%	**50%**	<.01

*Multiple Responses Allowed. Web respondents were presented with pre-coded options to choose from, while phone respondents were asked this question in an open-ended format.

We asked those respondents who reported making no effort to use less electricity during the event time about what prevented them from taking action (Table 8). The most common response was that they thought there was nothing more they could do to use less energy (39%). Other notable reasons for no action included that it was too hot on the event day (14%), and that reducing usage was not possible due to necessary consumption (10%). Ten percent also reported they were not at home during the event time.

Table 8: Reasons for No Actions among Nonresponders by Group (Open-Ended with Precodes Multiple Responses Allowed)

	Summer Saver N=86	Energy Challenge N=97	Opt-in Alerts N=82	My Acct. N=113	No My Acct. N=17	Wt. Total	Sig.
Already using as little as possible/nothing to do	38%	30%	18%	35%	53%	**39%**	<.05
It was too hot that day	33%	27%	20%	19%	0%	**14%**	<.001
Wasn't possible at the time / necessary consumption	10%	18%	15%	11%	6%	**10%**	Ns
Wasn't home at the time	5%	14%	17%	10%	12%	**10%**	Ns
Doesn't have an effect on bill (previous experience) / goals are difficult to meet	7%	7%	13%	4%	0%	**4%**	<.05

Did not remember	1%	2%	2%	4%	0%	**3%**	ns
Not enough time to prepare	0%	0%	5%	1%	0%	**1%**	ns
Other	5%	4%	5%	10%	18%	**12%**	ns

We asked respondents who reported making efforts to use less electricity about factors that might have been important to them or convinced them to make an effort to reduce their use on the event day. We offered three choices and asked them to select the most important factor (Table 9). Overall, 'earning a credit on my bill' was the most commonly selected reason (39%), followed by 'doing my part for San Diego' (34%) and 'helping the environment' (27%). We found a significant difference in response patterns between the groups. For the alert groups, particularly the Opt-in Alert group, an opportunity to earn a bill credit was cited as the most important factor significantly more often compared with non -opt-in groups.

Table 9: Important Factors to Make Effort in Reducing Use by Group

	Summer Saver N=262	Energy Challenge N=295	Opt-in Alerts N=316	My Acct. N=220	No My Acct. N=31	Wt. Total	Sig.
Earning a credit on my bill	52%	49%	59%	36%	35%	**39%**	<.05
Doing my part for San Diego	29%	27%	21%	37%	32%	**34%**	
Helping the environment	18%	24%	21%	27%	32%	**27%**	
TOTAL	100%	100%	100%	100%	100%	**100%**	

Among the respondents who reported making efforts on the event day, 11% said they experienced negative effects (Table 10). The Summer Saver households were significantly more likely to report experiencing negative effects during the event day compared with other groups.

The most common negative effect reported was discomfort due to heat (n=94, 77% of those reported negative effect). Some respondents (n=14, 12%) reported they experienced physical effects such as headache, nosebleed, and an inability to sleep. Some also reported being concerned for the health of the elderly and animals. Other effects were inconvenience, for example getting behind on laundry and other household chores.

Table 10: Negative Effects Experienced by Group

	Summer Saver N=257	Energy Challenge N=289	Opt-in Alerts N=315	My Acct. N=215	No My Acct. N=30	Wt. Total	Sig.
Experienced negative effect	23%	8%	11%	8%	17%	**11%**	<.05

Feedback

Respondents rated their agreement with statements about RYU event notification and willingness to respond to future events, and provided opinions for improving the PTR program.

A majority of the respondents (81%) agreed that the 'RYU event announcement was adequate' (Table 15). Similarly, a large portion of the respondents (78%) agreed that they would reduce their electricity use during future RYU events. This willingness to reduce in the future differed significantly between groups, and was particularly high among the Opt-in Alert group (92%; Table 11).

Table 11: Satisfaction with PTR Event Announcement by Group

		Summer Saver N=339	Energy Challenge N=383	Opt-in Alerts N=383	My Acct. N=319	No My Acct. N=43	Wt. Total	Sig.
RYU event announcement was adequate.	Agree	87%	86%	88%	80%	81%	**81%**	ns

Table 12: Willingness to Respond to Future Events by Group

		Summer Saver N=595	Energy Challenge N=587	Opt-in Alerts N=567	My Acct. N=711	No My Acct. N=212	Wt. Total	Sig.
I will reduce during future RYU events.	Agree	85%	88%	92%	76%	78%	**78%**	<.05

Many respondents provided verbatim responses when asked their opinions of how to improve the program. Table 13 shows the coded responses. The most common topics mentioned were increasing the value of the bill credit or improving the "use less than…" calculation (5%), that as already low energy users, the respondent had nothing more to do (5%), and desired changes in mode of communication (5%).

Table 13: Suggestions for Program Improvement (Open-Ended)

	Wt. Total
Increase bill credit value or improve "use less than …" calculation	**5%**
Already low energy user, nothing more to do	**5%**
Opinion in mode of communication	**5%**
Provide advance notice or reminders of events	**2%**
Provide more or improved feedback on my performance	**2%**
Clearer information / program is confusing	**2%**

Provide more energy saving tips	**1%**
Provide benefits for those who are already low-energy users	**1%**
Improve or Increase Electricity Generation	**1%**
More advertising / Increase awareness	**1%**
Other	**4%**

Sample verbatim responses in frequently mentioned categories included:

Increase incentive value or improve "use less than…" calculation

- "I think you need to provide more incentives to customers. My favorite incentive was being able match and to donate funds to schools."
- "Make the energy use goals reasonably attainable. On a previous Reduce Your Use day, we tried really hard to use minimal energy. Even without using the air conditioner and turning everything off that we weren't using, we couldn't get anywhere near the usage goal. It makes you not want to bother trying."
- "Use more realistic baselines for calculation of what is considered a reduction in use. My initial baseline was determined from a period when I was on vacation and had the house shut down."
- "I would like to see a bigger difference in my electric bill. $1.25 hardly seems worth the trouble since I have done nearly everything SDG&E has asked me to do."
- "[O]ne day we left our house for the entire timeframe 11-6, did not leave the AC on, and we still didn't get below the level they said we needed to get below to get $3.00 back! Nothing was on except power strips! When you are already conserving, it is hard to reduce your use much more to get the rebate. I would have to try to use MORE energy the rest of the year so I could then reduce my energy during alerts."
- "I reduced my energy faithfully on more than one of the days that SDG&E sent out the text message. When I checked my bill and saw ONLY a .75 cent credit I decided it was absolutely RIDICULOUS to sweat without using the fans, get behind on our laundry duties, etc. The incentive is WAY TOO SMALL."

Already low energy user / nothing more to do

- "SDG&E asked me to use less than 1 KWH and I used 0.67 kWh on the same RYU event time but I didn't get the credit... [W]hen I asked customer care they're telling me I need to use 0 KWH when SDG&E asked me to use less than 1kWh, which is practically impossible. What kind of crap program is this?"

- "On the reduce days you need to reduce use to a threshold, which is based on your average normal usage. Since my usage is very low already, it is near impossible to ever meet the required threshold. Thus, I am not inclined to take action to reduce my use."
- "I feel like our household already uses a minimum amount of energy; we don't have air conditioning, don't watch TV until about 9pm, don't use the oven to cook, and do minimal laundry. But we are still told to 'turn up the thermostat to 72 degrees.' When it's 100 degrees in my house, and I'm cooling my child down with washcloths, this is offensive. I don't feel like there are any other ways to reduce my usage, and I'm getting penalized for already having low usage and not being able to cut back any more."
- "The only way I know to further reduce my energy consumption is to unplug my energy star refrigerator. As I told customer reps before, I hardly use any energy so I don't know how to further reduce it. They ignored my challenge to come and show me how to use less energy. I resent that as an already-energy-efficient household we can 'earn' credits or be eligible for sweepstakes."

Opinions in mode of communication

- "It would be better for me to receive a pre-programmed message on my home phone answering machine than a text message on my cell phone."
- "I can only access the internet at the library. Telephone messages left to my home phone would be excellent!"
- "I think the email notification is helpful for me because sometimes I don't hear about it on the TV news or radio. "
- "Text us during the reduce your use period if we are on track for reducing our normal use, not reducing enough to earn a credit, or are using more than energy than normal for us. "

Provide advance notice or reminders of events

- "I am receiving emails from SDG&E the day after they want me to reduce usage. They need to fix this."
- "I need more than 24 hours notice. I would like daily reminders 4-5 days before hand."
- "Notices for Saturday events don't seem to arrive prior to Saturday. It would be helpful to have them earlier. A summary by email of usage for reduce your use days would make it more visible and encouraging to try to reduce next time."

- "I suffer from M.S. and receive a medical baseline allowance because air conditioning is a medical necessity. More notice would be preferable. It helps to plan ahead for housework tasks that require significant amounts of electricity."
- "I would like a two-day notice, if possible."

Provide more or improved feedback on my performance

- "Be more specific as to my energy usage. I was repeatedly told that I was 'close.' This was not informative at all, nor was it motivating."
- "Provide feedback to me as to how much energy I saved. It should be as given as quickly as possible."
- "Allow me to view credits earned when checking the website from my iPhone."
- "Having an application on the web site showing your real time use would be beneficial."
- "If you are going to send a text after the event put useful information in it, not just check online; I already know I can do that. That is a waste of my test message usage. Add testimonials to the website about what people that are saving are doing. Tell people that they can sign up multiple people in their household. The bill payer is not always the energy user."
- "Email detailed information about my energy usage after the reduce your use day, rather than making me log in to my account online."

Clearer information / program is confusing

- "I don't understand what they mean by 'reduce.' They don't say reduce by a certain amount, or a certain percentage, or if it's compared to my average usage or just a certain level."
- "Explain the program better. I have no idea what the points or rewards mean. The communication around this has not been very clear."
- "In communications, be more explicit about how much money I can save with how much electricity I can save. I would like numbers."
- "The graphs of my usage are confusing. It's hard to discern what effect my efforts have on my use or my bill. Make it more intuitive for the common household to understand, especially money savings that can be earned."
- "I do not understand when and how you receive credit on your bill for meeting goals. This part of the program needs better explanation."

SMALL COMMERCIAL

Firmographics

Table 14 summarizes the characteristics of small commercial respondents by firms with MyAccount and No MyAccount. None of the characteristics were significantly different between these two groups.

Eighty percent of the respondent firms reported their occupied space has a central air conditioner. General offices (34%), retail or wholesale (20%), personal services such as spa or salon (12%), and food services (10%) were the main business types represented among the respondents. Sixty-four percent of the respondent firms lease their space, and about a third (36%) own their building but some of them only partially occupy the building they own. The space sizes widely vary but more than half of the respondents occupy a space no larger than 3,000 SF (65%).

Table 14: Summary of Firm Characteristics by Group

		MyAcct. N=148	No MyAcct. N=85	Wt. Total	Sig.
Central air conditioner	Yes	77%	82%	**80%**	ns
Business type	General office	30%	35%	**34%**	ns
	Retail/wholesale	17%	22%	**20%**	
	Personal services	9%	14%	**12%**	
	Food service	12%	9%	**10%**	
	Manufacturing	7%	6%	**7%**	
	Medical	6%	4%	**5%**	
	Religious service	3%	1%	**2%**	
	Farm	4%	0%	**1%**	
	Other	12%	9%	**10%**	
Building ownership	Own the building and fully occupy	22%	30%	**27%**	ns
	Own the building and partially occupy	7%	9%	**9%**	
	Lease	71%	61%	**64%**	
Space size	Less than 1,000 SF	20%	20%	**20%**	ns
	1,000 less than 3,000 SF	49%	43%	**45%**	
	3,000 less than 5,000 SF	10%	13%	**12%**	
	More than 5,000 SF	21%	24%	**23%**	

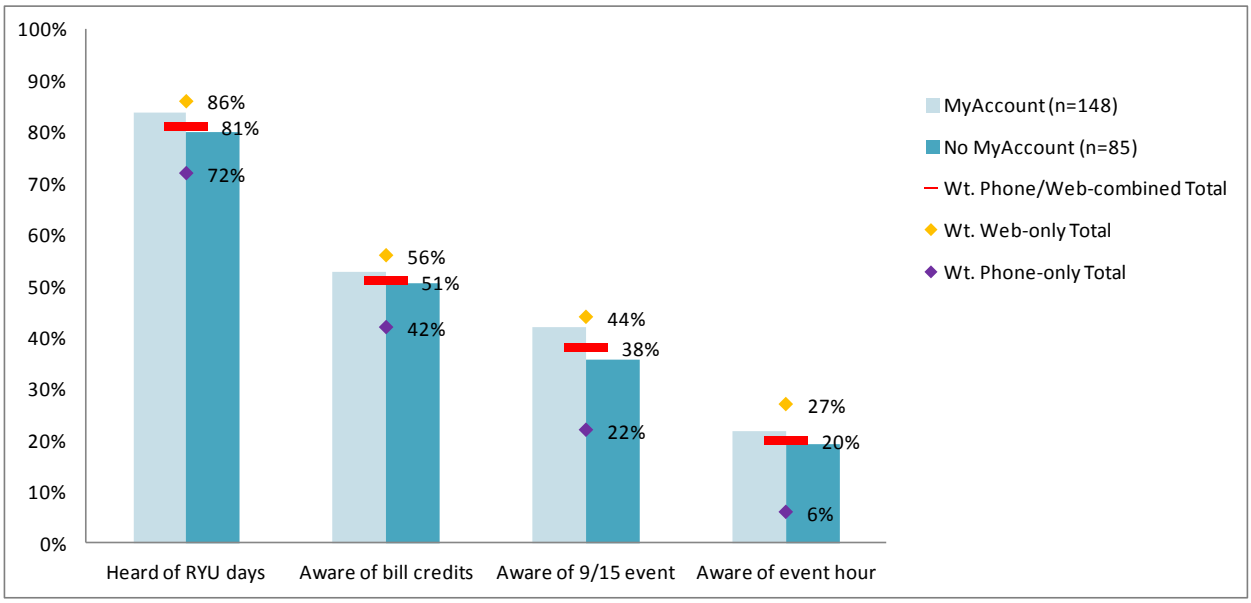
Awareness Measures

Figure 2 shows the different measures of awareness of RYU requests among the small commercial respondents, from the most general awareness of RYU days to specific elements of RYU requests. The figure also includes mode differences to demonstrate likely overestimation among the web respondents as explained in the "Methodology" section.

Overall, a majority of the respondent firms (81%) reported they have heard of RYU days in general. However, only half (51%) understood the general concept of PTR events – receiving bill credits in return of reducing their electricity use during event hours. When asked of the specific RYU event on September 15, slightly over a-third (38%) were aware. We did not find any differences between the groups on any of the awareness measurements.

Similar to the residential respondents, awareness levels among small commercial phone respondents were significantly lower than awareness levels among web respondents.

Figure 2: Awareness Measurements by Group



Event Day Actions

Businesses that made an effort to reduce their energy use reported a variety of actions in attempt to reduce their usage (Table 19). Among the most common actions, 49% reported turning off lights in unoccupied areas, 45% reported tuning off or adjusted air conditioning equipment, and 40% reported unplugging unused electronic equipment. Small percentages of the respondents

also reported shutting refrigerator or freezer lights off (14%), pre-cooling the space (12%), or closing their business early (11%). Almost half of the respondents reported they "just tried to use less energy" (45%) without specifying actions.

Table 15: Specific Actions Taken on the Event Day *

	Wt. Total (N=35)
Turned off lights	49%
Turned off or adjusted air conditioner	45%
Unplugged unused electronics	40%
Shut off lights in coolers/freezers	14%
Pre-cooled the space	12%
Closed business early	11%
Just tried to use less energy	45%

*Multiple Responses Allowed. Web respondents were presented with pre-coded options to choose from, while phone respondents were asked this question in an open-ended format.

Feedback

Some small commercial respondents provided verbatim comments when they were asked to provide suggestions for program improvement (Table 20). The most frequent topics mentioned include: respondents were unable to reduce their usage more than they already do (6%), they want to receive more or advance notification (5%), and the negative effects of responding on their business operation (3%).

Table 20: Suggestions for Program Improvement (Open-Ended)

	Wt. Total (N=233)
Cannot reduce more / already do what we can	6%
Provide more or advanced notification	5%
Would affect business operations or customer comfort	3%
Offer higher incentives	1%
Provide energy saving information	1%
Assistance with increase energy efficiency	1%
Other	4%

Sample verbatim responses in frequently mentioned categories included:

Cannot reduce more / already do what we can

- "[W]e turn the AC settings higher and turn off excess lights and try to keep the doors closed but we really can't do much because we still have to work and take care of customers."
- "Retail centers have very few options to reduce consumption."
- "The next greatest usage would be lighting and computer use, which is already minimal… [W]e are limited in our ability to respond in a substantive manner to reduce our energy further during alerts."

Provide more or advanced notification

- "Send out notifications a few days in advance. Makes for better planning."
- "[M]aybe easier way to notify us by email. Like a simple email without the fancy advertisements or picture. Maybe a simple step like 1,2,3."
- "[A]n advance warning. Like if there's severe weather like extreme temperature they should send out a warning."

Would affect business operations or customer comfort

- "The program does not work for my business. We are in a service business and cannot reduce our use without losing customers. So it is not economically feasible to reduce use. I think it is a good program, but not relevant for my business."
- "[W]e're a retail store and when it's 100 plus degrees out if we set our air-conditioning above 78 we lose sales."
- "[I]t's extremely difficult, when I put the thermostat to 76 people start complaining that it's warm, people feel uncomfortable."

APPENDIX A: MODE DIFFERENCE ANALYSIS

Residential

Table 21: Summary of Demographic Characteristics by Mode

		Wt. Phone-only N=369	Wt. Web-only N=2,515	Wt. Total	Sig.
Central air conditioner	Yes	43%	56%	**53%**	<.001
Have a pool	Yes	6%	13%	**11%**	<.001
Presence of senior (70 yr or above)	Yes	29%	13%	**17%**	<.001
Someone regularly home all day	Yes	50%	61%	**59%**	<.001
Homeowner	Yes	58%	65%	**63%**	<.01
HH Income	Under $50K	44%	37%	**38%**	<.001
	$50 to less than $100K	33%	31%	**32%**	
	$100K or more	23%	32%	**30%**	
Education	HS or less	20%	9%	**12%**	<.001
	Some college	33%	28%	**29%**	
	Bachelor's or higher	47%	63%	**59%**	
Ethnicity	White	69%	73%	**72%**	ns
	Asian	10%	8%	**9%**	
	Hispanic	11%	10%	**10%**	
	Black	5%	4%	**4%**	
	Other	5%	5%	**5%**	

Table 22: Awareness Measures by Mode

	Wt. Phone-only N=369	Wt. Web-only N=2,515	Wt. Total	Sig.
Head of RYU days	73%	88%	**85%**	<.001
Aware of bill credits	35%	55%	**50%**	<.001
Aware of 9/15 event	12%	44%	**38%**	<.001
Aware of event hour	6%	28%	**23%**	<.001

Table 23: Awareness of Event Notification by Mode

	Wt. Phone-only N=365	Wt. Web-only N=1,705	Wt. Total	Sig.
Aware of email/text notification option, among non-opt-ingroup	32%	48%	**45%**	<.001

Table 24: Use of Website by Mode

	Wt. Phone-only N=69	Wt. Web-only N=949	Wt. Total	Sig.
Used SDG&E website to check energy use, among those aware of 9/15 event	10%	27%	**32%**	<.01

Table 216: Source of Event Information among Those Aware of 9/15 Event by Mode *

	Wt. Phone-only N=69	Wt. Web-only N=1,007	Wt. Total	Sig.
Email message	33%	70%	**68%**	<.001
TV advertisement	6%	20%	**19%**	<.01
Radio announcement	1%	15%	**14%**	<.01
TV news	41%	10%	**12%**	<.001
Word-of-mouth	3%	7%	**6%**	ns
Phone text message	3%	4%	**4%**	ns
Other	1%	19%	**2%**	<.001

*Multiple Responses Allowed. Web respondents were presented with pre-coded options to choose from, while phone respondents were asked this question in an open-ended format.

Table 26: Perceived Frequency of Number of Notification by Mode

	Wt. Phone-only N=19	Wt. Web-only N=600	Wt. Total	Sig.
Just enough	100%	80%	**81%**	ns
Too many	0%	13%	**13%**	
Too few	0%	7%	**6%**	
TOTAL	100%	28%	**100%**	

Table 27: Level of Effort Made to Respond to 9/15 Event by Mode

	Wt. Phone-only N=63	Wt. Web-only N=939	Wt. Total	Sig.
A lot more effort than usual	6%	25%	**23%**	<.01
Somewhat more effort than usual	56%	44%	**44%**	
No more or less effort than usual	38%	32%	**33%**	
TOTAL	100%	28%	**100%**	

Table 28: Specific Actions Taken on the Event Day by Mode*

	Wt. Phone-only N=39	Wt. Web-only N=638	Wt. Total	Sig.
Turned off lights	13%	62%	**59%**	<.001
Not doing laundry	26%	58%	**56%**	<.001
Turned off or adjusted AC	67%	53%	**54%**	ns
Not running dishwasher	5%	40%	**38%**	<.001
Unplugged electronics	31%	35%	**35%**	ns
Left home	8%	34%	**32%**	<.01
Shifted cooking time	0%	26%	**24%**	<.001
Pre-cooled the house	0%	13%	**12%**	<.01
Turned off pool pump	13%	7%	**7%**	ns
Unspecified (just tried to use less)	23	52%	**50%**	<.001

*Multiple Responses Allowed. Web respondents were presented with pre-coded options to choose from, while phone respondents were asked this question in an open-ended format.

Table 29: Reasons for No Actions among Nonresponders by Mode (Open Ended)

	Wt. Phone-only N=24	Wt. Web-only N=301	Wt. Total	Sig.
Already using as little as possible/nothing to do	75%	37%	**39%**	<.001
It was too hot that day	8%	14%	**14%**	ns
Wasn't possible at the time / necessary consumption	4%	10%	**10%**	ns
Wasn't home at the time	0%	11%	**10%**	ns
Doesn't have an effect on bill (previous experience) / goals are difficult to meet	0%	4%	**4%**	ns

Did not remember	8%	2%	**3%**	ns
Not enough time to prepare	0%	1%	**1%**	ns
Other	0%	12%	**12%**	ns

Table 30: Important Factors to Make Effort in Reducing Use by Mode

	Wt. Phone-only N=39	Wt. Web-only N=617	Wt. Total	Sig.
Earning a credit on my bill	39%	38%	**39%**	ns
Doing my part for San Diego	26%	35%	**34%**	
Helping the environment	36%	27%	**27%**	
TOTAL	100%	28%	**100%**	

Table 31: Negative Effects Experienced by Mode

	Wt. Phone-only N=40	Wt. Web-only N=602	Wt. Total	Sig.
Experienced negative effect	30%	10%	**11%**	<.001

Table 32: Satisfaction with PTR Event Announcement by Mode

		Wt. Phone-only N=64	Wt. Web-only N=862	Wt. Total	Sig.
RYU event announcement was adequate.	Agree	98%	80%	**81%**	<.01

Table 33: Willingness to Respond to Future Events by Mode

		Wt. Phone-only N=68	Wt. Web-only N=895	Wt. Total	Sig.
I will reduce during future RYU events.	Agree	97%	80%	**78%**	<.01

Small Commercial

Table 34: Summary of Firm Characteristics by Mode

		Wt. Phone-only N=72	Wt. Web-only N=162	Wt. Total	Sig.
Central air conditioner	Yes	83%	75%	**80%**	ns
Business type	General office	26%	38%	**34%**	<.001
	Retail/wholesale	21%	19%	**20%**	
	Personal services	19%	9%	**12%**	
	Food service	19%	5%	**10%**	
	Manufacturing	10%	5%	**7%**	
	Medical	0%	7%	**5%**	
	Religious service	0%	3%	**2%**	
	Farm	0%	1%	**1%**	
	Other	6%	11%	**10%**	
Building ownership	Own the building and fully occupy	19%	32%	**27%**	<.05
	Own the building and partially occupy	6%	10%	**9%**	
	Lease	76%	58%	**64%**	
Space size	Less than 1,000 SF	20%	19%	**20%**	ns
	1,000 less than 3,000 SF	52%	42%	**45%**	
	3,000 less than 5,000 SF	13%	12%	**12%**	
	More than 5,000 SF	16%	27%	**23%**	

Table 35: Awareness Measures by Mode

	Wt. Phone-only N=72	Wt. Web-only N=162	Wt. Total	Sig.
Head of RYU days	72%	86%	**81%**	<.01
Aware of bill credits	42%	56%	**51%**	<.05
Aware of 9/15 event	22%	44%	**38%**	<.01
Aware of event hour	6%	27%	**20%**	<.001