

research/into/action inc

MEMORANDUM

To: Brenda Gettig, Senior Business Analyst

From: Dulane Moran, Hale Forster and Jun Suzuki, Research Into Action

Date: October 22, 2012

Re: PTR August 14 Post-Event Survey Results

SUMMARY

Residential

- → Awareness. While awareness of the PTR concept increased since the July post-event survey, levels of awareness of the August 14 event remained similar to—or slightly lower than—July 20 awareness levels. Awareness of the August 14 event was highest among the Energy Challenge and Opt-in Alert groups.
- → Multi-event effects. The five events in less than two weeks could have caused some confusion about which days were PTR event days. While awareness of the PTR event day concept increased from the previous post-event survey, awareness of the specific event on August 14th was similar or lower than awareness of the July 20 event in most response groups.
- → Alerts. Most contacts report that the number of notifications they receive is adequate. Email continues to be the main source of event awareness for all response groups except the no-MyAccount group. More contacts reported television as a source of event awareness for this event than for the July event (this notification could be due in part to the TV ads for the state-wide Flex Alert day, though.)
- → **Response.** Contacts in the opt-in alert, Summer Savers, and Energy Challenge groups reported the most effort in response to the event request.
- → Feedback. The most frequent suggestion to improve PTR events was to increase promotion and notification of event days. Some contacts, particularly those in the Energy Challenge response group, requested more performance feedback and recommendations.



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Increases in bill credit amounts and website usability were mentioned by only a few contacts.

Commercial

→ Awareness. While awareness of the PTR concept increased since the July post-event survey among small commercial customers, levels of awareness of the August 14 event remained similar to July 20 awareness levels. Awareness among opt-in alert group respondents was much higher than those who had not signed up for alerts.

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METHODS

During a cluster of five countywide Peak Time Rebate events between August 9 and August 21, 2012, we launched a phone survey of residential and small commercial San Diego Gas and Electric customers.

Sunday Monday **Tuesday** Wednesday **Thursday** Saturday 6 10 11 **RYU Day** RYU Day **RYU Day** 13 14 15 RYU Day Survey Start 21 22 24 25 Survey End RYU Day

Table 1: August Calendar of RYU Events and Survey Timeframe

Following the August 14 event, between August 16 and August 20, CIC Research completed surveys with 532 SDG&E customers. Interviews lasted less than seven minutes. The survey asked about: respondent understanding and awareness of event days, means of notification, possible actions to reduce electricity use, intent to participate in the future, and general suggestions for program improvement. To maintain consistency with the previous survey, all questions about specific event awareness and actions were asked of the most recent event, on August 14.

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), those who signed up for the Summer Savers program, and those who received email alerts because of their use of MyAccount, we stratified both the residential and commercial samples. For this August survey, we added two additional strata to the residential sample. Table 2 shows the strata for both residential and commercial samples. The first two residential strata were not part of the July 2012 post-event survey.

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.

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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 alert sent to MyAccount-registered email address.
No MyAccount	Not in any of the top three groups, and does not have MyAccount.
	COMMERCIAL
Alert Opt-in	Opted in to receive text or email alerts for event days. Not part of commercial Summer Savers.
MyAccount	Did not opt in for alerts, but has MyAccount. Email alert sent to MyAccount-registered email address.
No MyAccount	Did not opt in for alerts, and does not have MyAccount.

Note that the commercial sample was initially defined as two strata: Alert opt-in and no-Alert. We have treated the commercial sample as three strata in this analysis. We expanded the commercial strata for two reasons: the random sample of this non-alert strata was not representative of the population of Small Commercial customers, and we wanted to provide consistency with the third post-event survey, which contains both the MyAccount and No-MyAccount strata.

Table 3 and Table 4 show the number of surveys completed with each stratum, as well as the population of each.

Because we were particularly interested in understanding the event day experiences of those in the alert groups, the sample overrepresented the alert groups, relative to the population. Thus, to develop an estimate of *overall* RYU day awareness across the SDG&E population, we used proportional weights to correct for this oversampling, according to the following formula:

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

Table 3 and Table 4 show the weights of the residential and commercial sample strata, respectively, as well as their relative contributions to the weighted totals (shown in the final column). Note that these are proportional, not scaled weights, so the weighted sample size is equal to the unweighted sample size rather than the population as a whole.

Table 3: Residential Population, Sample, and Weights

Sample Group	Population	Sample Size	Weight	Weighted Sample Size
Summer Savers	23,481	68	0.12	8.2
San Diego Energy Challenge	4,379	70	0.02	1.5
Alert Opt-in	41,340	155	0.09	14.3
Yes MyAccount	530,562	70	2.64	184.5

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No MyAccount	639,528	68	3.27	222.4
Total	1,239,290	431	N/A	431

Table 4: Small Commercial Population, Sample, and Weights

Sample Group	Population	Sample Size	Weight	Weighted Sample Size
Non-Alert, MyAccount	36,130	32	.97	31
Non-Alert, No MyAccount	80,989	30	2.32	70
Alert	416	39	0.01	0.4
Total	117,535	101	N/A	101

Response Interpretation

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 unweighted 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.

Because of the magnitude of oversampling of the "alert" groups (while the alert group makes up half of the residential sample, alert group members make up less than 6% of the population as a whole), the weighted results are approximately equal to the results of the non-alert groups alone. For this reason, weights have not been applied to results within strata, but when results have been averaged across the whole sample. Unless signified by the column header "Wt. Total," all results in this report are unweighted. Significance tests were conducted with unweighted data only.

Additionally, because of the skip patterns in this survey instrument, the number of responses to a given question varies considerably throughout the chapter. To limit the amount of numbers in each table, we have omitted this table sample size. Instead, we have provided an explanation the subset of respondents who answered each question (for example, we have indicated whether a question was asked of all respondents, or only those who indicated an awareness of the August 14th event.)

RESIDENTIAL FINDINGS

Awareness of Event Days

To understand the level of awareness of the PTR concept, as well as of specific event days, we asked contacts several types of questions to assess awareness. A large majority of residential

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contacts in each response group were aware of the existence of RYU event days. Even in the non-alert, no MyAccount group, 79% were aware of RYU days generally (Table 5). (This general awareness was defined as having heard anything about RYU days or event requests from SDG&E in the last year.) Awareness of the actual August 14 event was lower, with just under one fifth of contacts reporting awareness of that request, on average.

Awareness differed significantly across alert groups. Over half of contacts in the Energy Challenge response group and in the opt-in alert response group (59% and 57%, respectively) were aware that a RYU request had been issued on August 14th. Awareness among the Summer Saver response group was at 34%. While this level of awareness was higher than the awareness in the non-opt in groups, it was lower than the SDEC group or the opt-in alert group.

Table 5: Awareness Measurements by Group

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Aware of RYU days	88%	97%	98%	93%	79%	86%	<.001
Understand PTR concept ¹	64%	69%	83%	43%	40%	42%	<.001
Aware of 8/14 event	34%	59%	57%	18%	14%	17%	<.001
Aware of 8/14 event and event hours	15%	43%	48%	19%	7%	14%	<.001
Aware of 8/14 event and bill credit	23%	34%	29%	13%	6%	10%	<.001
Aware of 8/14 event, credit, and hours	7%	17%	14%	10%	3%	6%	<.05

¹ Aware of PTR days generally, and aware of bill credit.

The program team was interested in understanding the extent to which contacts distinguished between event days and non-event days. Overall, eight percent of respondents falsely identified Sunday or Monday as an event day (Table 6). False identification was highest among the Energy Challenge response group, with 38% of respondents recalling an event day on one of these two days.

Table 6: Event Day Recall Accuracy

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Thought 8/12/Sun or 8/13/Mon was event day, among those aware of 8/14	12%	38%	19%	9%	6%	8%	<.001

Awareness of the notification option among the non-alert groups was moderate, with just under one-third of respondents reporting awareness of the notification option (Table 7). A majority of opt-in alert contacts reported using the website to check their energy use in connection with the event.

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Table 7: Awareness of Event Notification Option and Use of Website by Group

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Aware of email/text notification option, among no alert group (n=92) ¹	-	-	-	35%	24%	29%	ns
Used SDG&E website to check energy use, among those aware of 8/14 event (n=82) ²	12%	33%	63%	42%		27%	<.01

¹ Asked of those who indicated they were aware of PTR concept.

Sources of Awareness

Among those aware of the event, email was the most frequently mentioned means of notification for all groups except the non-Alert, no MyAccount group (Table 8). For this group, the most frequently mentioned means of notification was television.

Table 8: Source of Event Information, among Those Aware of 8/14 Event by Group (Multiple Responses Allowed)

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Email message	65%	83%	69%	70%	0%	39%	<.001
Television	4%	2%	1%	20%	78%	42%	<.001
Letter				10%	11%	9%	<.01
Phone text message	9%	15%	39%			5%	<.001
Radio	9%				11%	5%	<.01
Word-of-mouth	4%			10%		4%	<.01
Other	9%			10%	11%	14%	<.001

Overall, those contacts who were aware of the August 14 event were satisfied with the number of notifications they received (Table 9). Nearly one-fifth of Energy Challenge respondents reported that they received too many notifications, though.

Table 9: Number of Notifications

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Just enough	69%	79%	78%	86%	70%	83%	
Too many	8%	18%	10%		10%	3%	Ns
Too few	8%		8%		10%	3%	

² Asked of those who indicated they were aware of the August 14 event.

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Don't know	15%	3%	4%	14%	10%	11%

Preferred method of notification differed across response groups. Email was the most frequently requested means of notification among Energy Challenge, opt-in, and MyAccount response groups. Over half of Summer Saver and non-MyAccount groups volunteered that they would like to be notified by phone, though.

Table 10: Best Contact Method for Future Events

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Phone call	56%	17%	18%	23%	65%	47%	_
Email message	35%	72%	59%	65%	19%	39%	
Phone text message	2%	8%	20%	8%	6%	7%	
Letter	5%	3%	3%		5%	3%	<.001
Radio							_
Other	2%			3%	5%	4%	_
TOTAL	100%	100%	100%	100%	100%	100%	

Event Day Actions

To understand whether or not respondents know what to do in response to event requests, we also asked all contacts about what they could do to use less energy for an afternoon. One-fifth of contacts (21%) reported that there was "nothing" they could do to participate (Table 11).

Table 11: What Could You Do To Use Less Energy?

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Unplug unused electronics or minor appliances	18%	53%	38%	30%	31%	31%	<.001
Postpone use or turn off major appliances	25%	19%	37%	21%	28%	25%	<.05
Adjust or turn off AC	50%	17%	41%	23%	19%	22%	<.001
Leave home	10%	16%	17%	9%	18%	14%	ns
Turn lights off	6%	16%	16%	13%	12%	12%	ns
Other	9%	9%	13%	7%	6%	7%	ns
Nothing	21%	16%	8%	26%	18%	21%	<.01

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Respondents' reported level of effort to respond to the August 14 event varied across response groups: just a few opt-in alert group contacts (13%) reported that they made no effort, but half of the MyAccount group reported making no effort (Table 12).

Table 12: Level of Effort Made to Respond to 8/14 Event, Among those Aware of Event

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
A lot more effort than usual	37%	30%	33%	10%	11%	14%	
Somewhat more effort than usual	21%	37%	54%	40%	44%	43%	. 05
No more or less effort than usual	42%	33%	13%	50%	44%	44%	<.05
TOTAL	100%	100%	100%	100%	100%	100%	

Those contacts who reported they made an effort to respond to the event reported whether they experienced any negative effects of participating (Table 13). Overall, less than one-fifth of these contacts reported negative effects. Among those reporting negative effects, a majority said it was hot (80%), and some mentioned other inconveniences such as resetting electronics or shifting times for chores.

Table 13: Negative Effects Experienced (among those made an effort)

	Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Experienced negative effect	38%	23%	23%	17%	17%	18%	ns

Feedback and Suggestions

Contacts rated their agreement with statements about alerts and future events, as well as providing suggestions for improving the PTR program. Overall, agreement that event announcements are adequate was high (91% rated a "4" or "5" on a five-point scale; Table 14.) Similarly, a large majority of contacts agreed that they would reduce their use during future reduce your use events. These ratings did not differ significantly across performance groups. The most frequently mentioned suggestion (made by 55% of those offering suggestions) was to increase the promotion and notification of event days (Table 15). Nearly half of Energy Challenge contacts (47%) requested feedback and recommendations for future actions, as well. Increasing the bill credit, improving the program design or description, and improving the website, were mentioned by a minority of respondents. Those no MyAccount group contacts making "other" suggestions made varying comments, some of which were based on an incorrect understanding of RYU days (such as the suggestion to provide an incentive) or were more general comments about SDG&E (reduce rates; increase supply).

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Table 14: Satisfaction with PTR

Statement		Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
RYU event announcements are adequate. ¹	Agree	87%	95%	99%	90%	89%	91%	ns
I will reduce during future RYU events. ²	Agree	92%	94%	93%	80%	89%	85%	ns

¹ Asked of those aware of August 14 event.

Table 15: Suggestions for Program Improvement

	Summer Saver (n=16)	SDEC (n=17)	Opt-in Alerts (n=53)	My Acct. (n=13)	No My Acct. (n=11)	Wt. Total (n=110)	Sig.
More promotion and improved notification	38%	24%	32%	69%	45%	55%	ns
Provide feedback and recommendations	6%	47%	17%	15%	9%	12%	<.05
Increased bill credit	13%	6%	11%	8%		4%	ns
Improved program design	6%	12%	11%	8%		4%	ns
Have event on different day or time	13%	12%	11%			1%	ns
Clearer program description			8%				ns
Improved website			8%				ns
Other	19%		2%	15%	45%	29%	ns

Feedback and suggestions about the bill credit and the CRL calculation revealed varying levels of understanding and engagement with the program. Comments include:

- → "They need to offer more credit for 7 hours of discomfort 75 cents one day and \$1.50 the next day is not worth it."
- → "They need to have tier goals and not just one unrealistic goal. People will give up and quit trying."
- → "The level of energy use I had to be under was unrealistic, they took my lowest use of the week and told me to go under that"
- → "It wasn't real clear how to find out how much energy we reduced if any."

² Asked of all.

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Demographics

Table 16 summarizes the demographic characteristics across response groups. All characteristics but ethnicity varied significantly between the groups.

Table 16: Summary of Demographic Characteristics by Group

		Summer Saver	SDEC	Opt-in Alerts	My Acct.	No My Acct.	Wt. Total	Sig.
Central air conditioner	Yes	97%	23%	52%	43%	40%	43%	<.001
Presence of senior (70 yr or above)	Yes	32%	9%	21%	13%	51%	33%	<.001
Homeowner	Yes	89%	43%	67%	52%	74%	64%	<.001
Household Income	Under \$50K	32%	45%	35%	31%	54%	42%	
	\$50 to less than \$100K	27%	42%	44%	49%	30%	39%	<.001
	\$100K or more	41%	13%	21%	20%	16%	19%	
	HS or less	11%	7%	13%	10%	34%	23%	
Education	Some college	35%	34%	36%	37%	25%	31%	<.001
	Bachelor's or higher	53%	59%	52%	53%	40%	46%	
	White	77%	66%	75%	68%	83%	76%	
	Asian	7%	5%	5%	5%	2%	8%	
Ethnicity	Hispanic	8%	14%	13%	10%	7%	11%	ns
	Black	8%	14%	7%	15%	8%	3%	
	Other		2%		3%		1%	

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SMALL COMMERCIAL FINDINGS

Awareness of Event Days

Table 17 presents several measures of awareness both of the August 14 PTR event and of the overall concept of RYU days. A majority of each small commercial response group reported awareness of RYU days in general, including all of the opt-in alert group, 84% of those with MyAccount, and 63% of those without MyAccount. Awareness of the August 14 event was lower, though: the weighted average awareness of the event on August 14 was 15%, including 69% of those who signed up for alerts. Even among the opt-in group, full understanding of the event (including the potential to earn a bill credit and the hours the event took place), was relatively low, with 18% of opt-in alert contacts reporting awareness.

Table 17: Awareness Measurements by Small Commercial Notification Group

	Opt-in Alerts	My Acct. no alerts	No My Acct. no alerts	Wt. Total	Sig.
Aware of RYU days	100%	84%	63%	70%	<.001
Understand PTR concept ¹	93%	46%	36%	39%	<.01
Aware of 8/14 event	69%	25%	10%	15%	<.001
Aware of 8/14 event and event hours	41%		3%	2%	<.001
Aware of 8/14 event and bill credit	45%	13%	4%	7%	<.01
Aware of 8/14 event, credit, and hours	18%				<.01

¹ Aware of PTR days generally, and aware of bill credit.

We also attempted to understand the extent to which small commercial contacts might be misidentifying non-event days as event days. (While Saturday and Tuesday were event days, Sunday and Monday were not, see Table 1.) Overall, less than one-tenth of small-commercial respondents falsely identified either Sunday or Monday as an event day (Table 18). Those registered for opt-in alerts were more likely to falsely identify one of these two days as an event day. This proportion was higher among the alert population, though: one-third of those who opted in for alerts falsely identified one of these two days as an event day.

Table 18: Misconception about Event Day

	Opt-in Alerts	My Acct. no alerts	No My Acct. no alerts	Wt. Total	Sig.
Thought 8/12/Sun or 8/13/Mon is event day, among those aware of 8/14	33%	7%	11%	9%	<.05

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Close to half of non-alert group small commercial contacts who were aware of the PTR concept were also aware of the ability to sign up for event notifications (Table 19). Those contacts who had opted in for alerts were the only ones who reported having used the website to check their performance either before or after the event.

Table 19: Awareness of Event Notification Option and Use of Website by Group

	Opt-in Alerts	My Acct. no alerts	No My Acct. no alerts	Wt. Total	Sig.
Aware of email/text notification option, among no alert group	-	39%	47%	45%	ns
Used SDG&E website to check energy use, among those aware of 8/14 event	50%			1%	ns

Firmographics

Table 20 shows the firmographic characteristics of surveyed small businesses. Firmographics did not vary significantly across response groups.

Table 20: Summary of Firmographic Characteristics by Group

		Opt-in Alerts	My Acct. no alerts	No My Acct. no alerts	Wt. Total	Sig.	
Central air conditioner	Yes	91%	71%	73%	73%	ns	
	General office	21%	32%	23%	26%		
	Retail and wholesale	26%	26%	20%	22%		
Business type	Manufacturing	13%	6%	13%	11%		
	Personal services	8%	13%	7%	9%		
	Food services		13%	10%	11%	ns	
	Medical	13%		7%	5%		
	Repair			13%	9%		
	Education	5%	3%		1%		
	Other	13%	6%	7%	7%		
	Own the building and fully occupy	13%	26%	23%	24%		
Building ownership	Own the building and partially occupy	16%	6%	13%	11%	ns	
	Lease	71%	68%	63%	65%		
0	Less than 1,500 SF	39%	30%	32%	31%		
Space size	1,500 less than 3,000	33%	23%	20%	21%	ns	

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SF				
3,000 less than 4,500 SF	8%	17%	28%	24%
More than 4,500 SF	19%	30%	20%	23%

AWARENESS OVER TIME

The sections below summarize changes in awareness of the PTR concept and of specific curtailment request awareness since the July post-event survey.

Residential

Figure 1 and Figure 2 summarize awareness of the PTR concept and of the specific curtailment request across the July 20 and August 14 events among the Opt-in Alert, MyAccount, and no MyAccount response groups. (Summer Savers and SDEC groups were added for the August survey; awareness levels are shown in Table 5, above.) Awareness of the PTR concept has increased, but awareness of the specific curtailment request decreased from July 20 to August 14, for some groups.

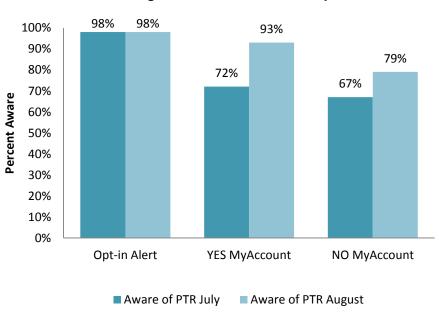


Figure 1: Heard of PTR Concept

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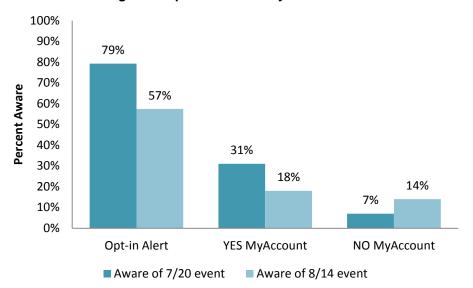


Figure 2: Specific Event Day Awareness

Commercial

For commercial respondents, similar to residential respondents, awareness of the PTR concept increased somewhat from the July to August surveys (Figure 3). Awareness of the specific curtailment request remained relatively constant, though.

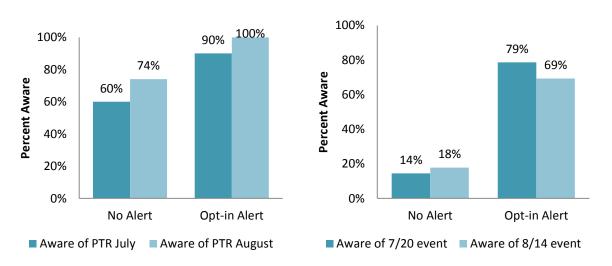


Figure 3: Awareness of PTR Concept and Event Days